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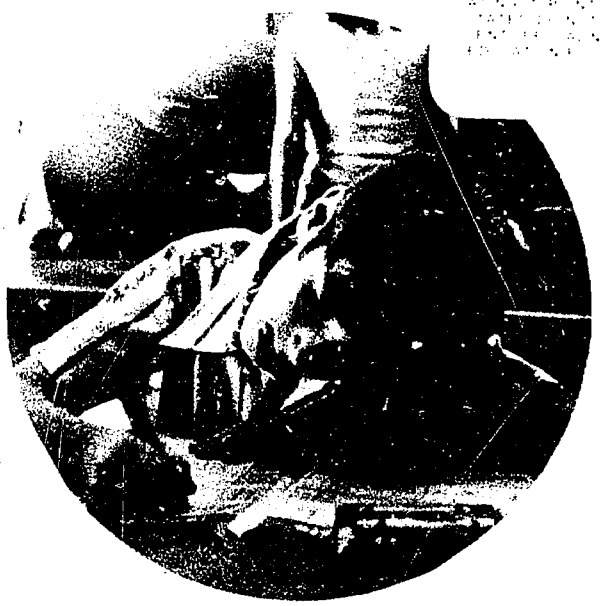
ABSTRACT

The curriculum guide for early childhood education of the multiply handicapped covers motor, academic, and perceptual skills. Operational definitions and developmental characteristics of the mentally retarded introduce the guide. Considered are the role of the teacher and teacher's aide, the classroom facilities, and scheduling. A chapter on techniques of instruction looks at the preparation of instructional objectives, continuous evaluation, individualized educational prescriptions, task analysis, classroom management, and instruction through imitation. Physical factors such as medical information, seizures, and dental care are discussed. Examined in the chapter on motor skill development are the role of the physical therapist, and development of gross and manipulative motor skills, self-care skills, and body awareness. Basic readiness and communication skills of the academic program are described. Development of the five senses is focused on in the chapter on perceptual skill development. Suggestions for appropriate field trips and instructional units emphasizing motor-academic-perceptual skill development are provided. The importance of teacher inservice training and parent involvement is stressed. Listed are instructional aids such as video-tape equipment and free or inexpensive materials. An annotated bibliography of approximately 65 materials for teacher reference is also included. Among the appendixes are a development checklist, a behavior prescription, and a test of motor-perception. (DB)

MOTOR



ACADEMIC

PERCEPTUAL

For the Early Childhood

Education of the

Multiply Handicapped

A

MOTOR

ACADEMIC

PERCEPTUAL

CURRICULUM GUIDE

ARIN INTERMEDIATE UNIT 28

serving Armstrong-Indiana Counties

EARLY CHILDHOOD EDUCATION OF THE MULTIPLY HANDICAPPED

MOTOR-ACADEMIC-PERCEPTUAL CURRICULUM GUIDE

(a part of Project #48-03016-32-500)

1972-73

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ARIN Intermediate Unit #28
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MOTOR-ACADEMIC-PERCEPTUAL CURRICULUM GUIDE FOR THE EARLY CHILDHOOD EDUCATION OF THE MULTIPLY HANDICAPPED

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TABLE OF CONTENTS

to the children

who made this guide possible

and to those who will benefit from it

PREFACE

Early childhood education is not new in the United States. The kindergarten movement began in the late 1800's, followed by the growth of various types of nursery schools and day care centers from the 1920's through the early 1960's. The federal government sponsored pre-school programs during the Depression to benefit the young child (as well as to provide jobs) and facilitated the growth of Day Care Centers for children whose mothers were working during World War II. In 1965, Project Head Start was designed by the Office of Economic Opportunity to alleviate the effects of poverty on disadvantaged preschool children (Harned, 1971).

Only within the past five years, however (with the passage of the Handicapped Children's Early Education Assistance Act), has the early childhood education of the handicapped been explored on a large scale. Recognizing that education at an early age can help the child with limitations (e.g., physical, intellectual, emotional, social, and/or educational) strengthen other functional areas, the federal government has funded a series of programs for the early childhood education of the handicapped. (The Office of Child Development has reported that there are over one million preschool children in the United States who possess a handicapping condition and who, therefore, require some form of special education or related services.)

Early childhood education programs for the handicapped have been in operation in the ARIN Intermediate Unit since March, 1969. While their

successes were evident, evaluations had indicated a need for innovative, creative activities. Research and experimentation on the motor, academic, and perceptual skill development of young handicapped children was made possible through a Part B, EHA grant, awarded to the ARIN Intermediate Unit, through Pennsylvania's Department of Education, Bureau of Special Education.

The Motor-Academic-Perceptual (M-A-P) Program was designed to develop, through research and experimentation, a practical, sequentially-planned curriculum for the early childhood education of the handicapped. The general goals of the program included:

1. Development of a sequentially planned motor program to provide teachers with concrete directions for developmental and remedial activities;
2. Development of experimental approaches in pre-academic and/or readiness activities; and,
3. Development of materials and programming techniques to sharpen and refine conceptual and perceptual skills at early ages.

The Motor dimension of the M-A-P Program was specifically designed to:

1. Enhance small and large muscle coordination;
2. Decrease dependence in personal hygiene and care; and,
3. Increase positive body-image.

The Academic dimension of the M-A-P Program was specifically designed to:

1. Improve adjustment to and participation in school routines;
2. Enhance communication skills for information, for personal rewards, and for socialization;
3. Increase verbalizations of thoughts; and,
4. Develop readiness skills and concepts in areas of numbers and symbols.

The Perceptual dimension of the M-A-P Program was specifically designed to:

1. Enhance awareness and identification of shapes, quantities, and colors;

2. Improve visual perception through exposure to vis -stimulating materials and field trips;

3. Improve auditory skills through screening, sorting, listening to and for certain sounds;

4. Develop olfactory and gustatory discrimination skills through experimentation with smells and tastes; and,

5. Increase tactile skills through the use of objects and models.

This motor-academic-perceptual curriculum guide for the early childhood education of the handicapped is based on research and experimentation conducted within the ARIN Intermediate Unit from October, 1972 through June, 1973. The materials and ideas presented were field-tested in two different classrooms (separated geographically) with a total of twenty-five children. These children ranged in age from four to eight and exhibited a variety of intellectual, social, emotional, and/or physical handicaps.

Learning experiences to enhance various skills are presented throughout this guide; it is up to the teacher to choose those activities which are appropriate for a particular child's level of development. It is hoped that this curriculum guide will be viewed as an initial attempt at systematically working with, and developing the motor, academic, and perceptual skills of young handicapped children. Much more time than the nine months allotted for this project is necessary for conclusive findings.

OPERATIONAL DEFINITIONS

The following terms referred to throughout the curriculum guide may be operationally defined as indicated:

Educationally Impaired - Children who may be socially and culturally handicapped or exhibit various manifestations of minimal brain dysfunction.

Educable Mentally Retarded - As defined by the American Association on Mental Deficiency (AAMD), children who exhibit mild retardation (IQ 52-67) or borderline ability (IQ 68-83).

Emotionally Disturbed - Children who are unable to express their feelings and needs without creating serious difficulties for themselves and/or others.

Handicapped Child - As defined in 1972 Amendment to the Economic Opportunity Act, the child who may be mentally retarded, hearing-handicapped (hard-of-hearing, deaf), speech-impaired, visually-handicapped, emotionally disturbed, physically handicapped, and/or otherwise health or educationally-impaired and, who, because of the handicap(s), requires special education or related services to realize full potential.

Health Impaired - Children who exhibit weakened conditions which contribute to their being relatively inactive or necessitate special precautions in the home or in the school (e.g., anemia, heart condition, diabetes).

Early Childhood Education - A general term describing programs which are designed to meet the needs of children through the age of 8 (e.g., day care, nursery school, Head Start, preschool and primary special classes, kindergarten, readiness, grades 1, 2, and 3).

Hearing Handicapped - As defined by the Bureau of Special Education, Department of Education, Harrisburg, children who exhibit reduced ability to develop and use meaningful language concepts, a binaural hearing loss of 30 dB (ISO) or greater in the speech range, and/or a severe monaural hearing loss of 50 dB (ISO) or greater in the speech range (500-2000 Hz).

Mentally Retarded - As defined by the AAMD, children who exhibit subaverage general intelligence (impairment in rate and amount of learning) originating in childhood causing impairment in adaptive behavior (maturational lags, learning problems, adjustment difficulties).

Mildly Mentally Retarded - A retarded child who is classified as educable for placement in a school program.

Minimal Brain Dysfunction (MBD) - A syndrome in children which may consist of various behavioral and psychological abnormalities; MBD children "manifest dysfunction in motor activity and coordination (hyperactivity or hypoactivity), attention and cognitive function, impulse control, interpersonal relations (particularly dependence-independence) and responsiveness to social influence, and emotionality" (Wender, 1971, p.12).

Moderately Mentally Retarded - A retarded child who is classified as trainable for placement in a school program.

Multiply-Handicapped Child - A handicapped child with two or more disability areas, such as physically handicapped-retarded or visually handicapped-MBD (minimal brain dysfunction).

Physically Handicapped - Children who are handicapped because of a disorder in bones, muscles, and/or joints (e.g., club foot, cerebral palsy, polio).

Preschool Age - The earliest chronological age at which the child can benefit from the activities or services provided to either the child or his/her parents (as defined under Title I-B, PL 91-230); usually includes children below the age of six or those between six and eight who are functioning below a first grade level.

Profoundly Mentally Retarded - As defined by the AAMD, children who are seldom able to care for themselves or communicate verbally and exhibit IQ's under 20.

Severely Mentally Retarded - As defined by the AAMD, children whose education is directed toward talking, eating, and cleanliness and who exhibit IQ's between 20 and 35.

Socially and Culturally Handicapped (Educationally Impaired) - Children who need an enriched environment because of some form of early deprivation.

Speech Impaired - Children who exhibit articulation problems, stuttering, disorders of voice, delayed speech, or any other deviation in speech which is sufficiently extreme to attract attention to the process of speech, to interfere with communications, or to affect adversely either the speaker, listener, or both.

Trainable Mentally Retarded - As defined by the AAMD, children who exhibit moderate mental retardation (IQ 36-51).

Visually Handicapped - Children who are partially sighted (have enough residual vision to learn through sight) and children who are blind [have so little remaining vision that they must use other sensory avenues (e.g., smell, hearing, touch) for learning and braille in order to read)].

DEVELOPMENTAL CHARACTERISTICS OF THE MENTALLY RETARDED*

DEGREE OF MENTAL RETARDATION	PRESCHOOL (AGE 0-5) MATURATION AND DEVELOPMENT	SCHOOL (6-20) TRAINING AND EDUCATION
Mild (educable)	Possesses minimal retardation in sensorimotor skills Exhibits social and communication skills Is often not distinguished from normal peers until at later age	Can learn academic skills through sixth grade level Blends into society as an adult
Moderate (trainable)	Possesses fair motor development but poor social awareness Can learn to talk or communicate Profits from training in self-help skills	Seldom progresses beyond second grade level in academic skills Profits from training in social and occupational skills
Severe	Possesses poor motor development Has little or no communication skills Is seldom able to profit from self-help training	Can learn to communicate or talk Can be trained to engage in some self-care Profits from systematic habit training
Profound	Possesses minimal sensorimotor skills Demonstrates extreme developmental lags Requires total care	May develop some motor skills May respond to limited training in self-help skills

*Adapted from Mental Retardation Activities of the U. S. Department of Health, Education, and Welfare, Washington, D. C.: HEW, 1965.

CHAPTER I

EARLY CHILDHOOD EDUCATION OF THE MULTIPLY HANDICAPPED

THE TEACHER IN A CLASS FOR THE MULTIPLY HANDICAPPED

The teacher of a class for the multiply handicapped must be a unique person. He/she must be able to:

1. Observe, record, and analyze pupil behavior;
2. Write instructional objectives;
3. Write educational prescriptions;
4. Engage in task analyses; and,
5. Use behavior modification techniques.

He/she must also possess the basic personality traits of:

1. Flexibility;
2. Patience;
3. Creativity;
4. Empathy;
5. A sense of humor; and,
6. Consistency.

It is necessary that the teacher have a professional background and training in:

1. Normal child development;
2. Exceptionalities in children;
3. Curriculum development; and,
4. Parent-education.

Since the demands which are constantly placed upon the teacher are so great and since the progress which children make is often not immediately evident, it is essential that the teacher receive on-going emotional support from the supervisor. Teachers need rewards, too!

TEACHING GUIDELINES FOR TEACHERS OF YOUNG MULTIPLY HANDICAPPED CHILDREN

In order for instruction to be most effective, the teacher should attempt to approach the child in the following manner (Bangs, 1968; Kirk, 1972; Parker, 1972).

1. Secure the child's complete attention.
2. Locate the basic level at which the child can succeed.
3. Teach initially to the child's area of success.
4. Use the appropriate vocabulary in instruction.
5. Present concepts concretely.
6. Introduce only one new concept at any given time.
7. Associate stimuli with only one response in a new learning situation.
8. Accompany the first signs of success with meaningful positive rewards.
9. Intervene before the child has an opportunity to experience failure.
10. Avoid abrupt shifting of activities.
11. Repeat learning experiences several times before introducing a new concept.
12. Accompany sedentary activities with frequent exercise.
13. Evaluate continuously throughout instruction.
14. Send progress reports home to the child's parents regularly.
15. Maintain anecdotal records on each child.

TEACHER AIDES

Teacher Aides play an essential role in a class for multiply handicapped children. It is the teacher's responsibility, however, to make clear

his/her expectations for the Aide and to guide the Aide in the handling of the children.

Responsibilities of Teacher Aides in Classrooms for Young Multiply Handicapped Children

1. Assist in taking pupils from the car or minibus to the classroom in the morning and to the car or minibus in the afternoon.
2. Assist in teaching the child to remove and put on outer garments.
3. Work beside the teacher in a supportive role during instruction.
4. Instruct small groups of children or individual children according to the teacher's specifications.
5. Toilet children who are not trained (regularly) and maintain systematic records.
6. Assist in the care of the classroom and supplies. (Assume responsibility for thorough cleaning of desks, tables, trays, mats, chairs, and other equipment used by the children.)
7. Accompany children on walks and field trips.
8. Supervise the child who becomes ill or is injured, remaining with the child until appropriate arrangements have been made.
9. Remain with the child during a seizure and note date, time, and behaviors of the child, as instructed by the teacher.
10. Maintain anecdotal records on the achievements of each child according to the teacher's directions.
11. Consult with the teacher on any problem in the classroom.
12. Assist in preparing physically-involved children for therapy by removing and replacing braces, etc. Assist with the child's therapy as directed.
13. Attend staff meetings and assist in instructional planning for each child.
14. Assume responsibility for informing the teacher of a situation requiring communication with the parent.
15. Seek help from the teacher whenever needed.
16. Attend parent meetings.

Training of Teacher Aides

Since specific educational requirements are not always a prerequisite for aides, assumptions cannot be made about the aides' ability to cope with situations in the classroom. Specialized training is necessary for classroom aides in the following areas:

1. Fundamentals of normal child growth and development;
2. Basic information on the growth and development of exceptional children;
3. Methods of maintaining anecdotal records;
4. Techniques for dealing with the child who is seizure-prone;
5. Utilization of behavior modification techniques in instruction;
6. Approaches to meet individual needs (i.e., knowing when to react mildly, to over-react, or to ignore certain behaviors which a child may demonstrate); and,
7. Appropriate speech and verbalizations (talking with the child, not down to the child).

THE CLASSROOM

A spacious classroom which has several dividers to separate out various classroom activities is felt to be essential for a successful early childhood education program for the handicapped. It is much easier for a handicapped child to know what he is supposed to do in a particular situation if only one thing is scheduled to happen in that area. Thus, specific areas in the room should be designated to be used for:

1. Gross-motor activities;
2. Academic skill development;
3. Perceptual activities; and,
4. Quiet and relaxation.

It is also beneficial for the child's subsequent learning if toileting and eating experiences take place in an area which is separate from the classroom. In this way, the child learns the appropriate cues for when and where these self-care activities should be taking place.

A partially-carpeted classroom enables both the teacher and the child to feel comfortable enough during the instructional process to become involved with one another on the floor. Much of the instruction for the young handicapped child should take place away from tables and chairs.

SIZE OF CLASS AND STAFF NEEDED

When attempts are made to involve young multiply handicapped children with a variety of handicapping conditions within the same classroom, it is essential that a small class size (e.g., 6-8 children) be maintained. Individualized and small group instruction is necessary and only if the class size does not exceed eight can this be feasible.

For a class of 8 children, a teacher and a minimum of two classroom aides should be available. While one aide assists the teacher in instruction, the other aide can be involved in preparation for the next activity in order to insure smooth transitions between activity periods.

SCHEDULING FOR YOUNG MULTIPLY HANDICAPPED CHILDREN

Structure gives the young handicapped child security. The establishment of a daily routine enables the child to know what is to happen next. This kind of consistency also contributes to rapid learning. A series of several short activities is much better than a single lengthy lesson.

Suggested Daily Schedule

8:30- 8:45	ARRIVAL
8:45- 9:00	SELF-CARE INSTRUCTION (Hanging up coat, toileting, washing hands.)
9:00- 9:15	FREE PLAY (Instructing the child on how to play with toys is often necessary.)
9:15- 9:30	OPENING EXERCISES (Pledging allegiance to the flag, singing a morning song, talking about the weather.)
9:30- 9:45	SMALL GROUP LESSON - CONCEPTS (Identifying body parts, colors, number or letter concepts, animals, prepositions, etc. Instruction should always begin at the child's level of development; no more than 5 children should be in a group at any one time.)
9:45- 9:55	JUICE TIME (Having the children assist in the distribution of napkins, cookies, etc., makes this time instructional.)
9:55-10:05	TOILETING (Toileting should take place at frequent intervals for each untrained child and a careful record should be maintained.)
10:05-10:30	GROSS MOTOR ACTIVITIES (Using playground equipment, walking, running, or other activities contingent upon the specific needs of each child.)
10:30-11:00	LANGUAGE DEVELOPMENT (Using Peabody materials and other forms of language stimulation to meet the needs of each child.)
11:00-11:30	FREE PLAY/INDIVIDUAL INSTRUCTION [Instructing some children in weak areas (e.g., jumping, recognizing colors, identifying body parts, exercising through physical therapy) while others play independently.]
11:30-11:40	SELF-CARE INSTRUCTION (Toileting, washing hands.)

11:40-12:20	LUNCH (Setting the table, developing self-feeding skills, socializing with peers, using appropriate table manners, clearing the table, etc. This is an instructional time.)
12:20- 1:00	REST-TIME (Including music or a story at this time helps the child to relax.)
1:00- 1:20	PERCEPTUAL-MOTOR ACTIVITIES (Stacking blocks, stringing beads, putting puzzles together. Materials must be evaluated as to their appropriateness for each child.)
1:20- 1:50	CIRCLE GAMES/RHYTHM INSTRUMENTS (Playing musical circle games, marching, making music with rhythm instruments.)
1:50- 2:10	ART ACTIVITIES (Finger painting, paper tearing, pasting, playing with clay. Activities in which the child can engage and are at his/her level of development.)
2:10- 2:15	ROOM PREPARATION (Having the children put toys and other materials away; decorating the room with the children's work.)
2:15- 2:25	SELF-CARE (Toileting, washing hands, putting on outer clothing.)
2:30	DISMISSAL
2:30- 3:00	PLANNING (Considering each child's level of development, teachers and aides plan for the next day.)

BEGINNING SCHOOL

Be it a first, or a returning experience, the start of the school year requires many adjustments for both the children and the teaching staff. The multiply handicapped young child needs a comprehensive orientation to give him a sense of security and continuity.

Prior to the beginning of school, the class teacher and aides should establish the daily schedule which will be adhered to throughout the school day. A regular routine will make the school day move more smoothly for teacher and child alike.

Repetition is vital in acclimating children to school routines. Beginning with the first day, the entire schedule should be followed through everyday.

The first few days of school should allow for exploration as well as for an orientation to the overall activities which will be taking place.

The following activities are suggested:

1. Allow the child to react in his/her own way initially.

   a. If he chooses to sit, allow him to sit, but talk with him softly, or calmly place a toy (demonstrate its use) in his reach.

   b. If he chooses to explore the room, let him explore the room, but accompany him on his explorations.

2. Check on the toileting habits of each child. (Be prepared with a change of clothing for each child in case of accidents.)

3. Establish a morning exercise. (This initially could take the entire morning; don't expect the child to conform immediately. It takes time to learn to sit!) This could include:

   a. A "Good Morning Song": include the names of each child and touch each child as you say his/her name. (See record listings in section on Commercially-Produced Instructional Materials or develop teacher-written songs.)

   b. Weather (Discuss the day's weather; pass the sun if "sunny," etc.)

   c. Flag Salute (Allow the children to take turns holding the flag.)

   d. Roll call (Use to stress each child's name.)

4. Have identical color-and-picture cued name tags placed on the child's coat-hook, seat at a table, rest mat, etc., prior to the child's arrival in school (e.g., Scott's name appears on a blue construction paper baseball hat all around the room).

5. Begin checking each child's current level of development on the "M-A-P Skill Development Checklist." (See Appendix A.)

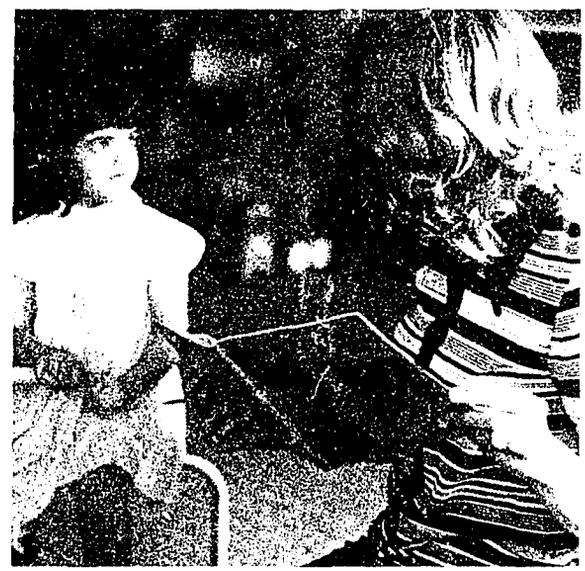
6. During gross motor, perceptual, art, etc., activity sessions, introduce materials which will be used in the class very gradually. E.g., allow the children to explore a mirror which you bring into the class, prior to introducing other materials.

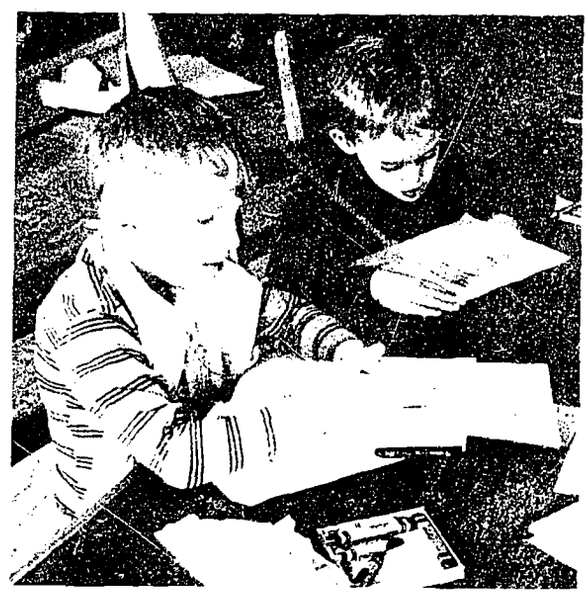
7. Provide frequent toileting periods throughout the school day.

8. Praise each child extensively for each effort that is put forth.

CHAPTER 2

TECHNIQUES OF INSTRUCTION





PREPARATION OF INSTRUCTIONAL OBJECTIVES: THE FIRST STEP IN INSTRUCTION

In order to teach effectively, the teacher must engage in continuous evaluation--evaluation of what he/she plans to teach, evaluation of his/her success in teaching it, and evaluation of the materials and procedures which are effective in teaching what is desired. Unless well-defined objectives are established, it is impossible to evaluate one's teaching in an efficient manner.

An OBJECTIVE is "an intent communicated by a statement describing a change in a learner--a statement of what the learner is to be like when he has successfully completed a learning experience; it is a description of a pattern of behavior (performance) we want the learner to be able to demonstrate" (Mager, 1962, p.3). In writing instructional objectives (and they should be written for anything the teacher wishes to teach), the following questions must be answered in sequential order:

1. What is it that we must teach?
2. How will we know when we have taught it?
3. What materials and procedures will work best to teach what we wish to teach?

Steps in Writing Specific Instructional Objectives

1. Determine who is to be doing the learning (the audience). Note the abilities and limitations of the children who will be expected to attain the objectives.
2. Describe the behavior by a specific action which will indicate that the child has achieved the objectives (what will the learner be doing?).

   The following words, for example, help to specify the behavior:

Motor Behaviors	Academic Behaviors	Perceptual Behaviors
to carry	to count	to choose
to catch	to define	to compare
to chase	to listen	to describe
to climb	to name	to discriminate
to draw	to print	to identify
to jump	to read	to match
to kick	to recite	to place
to paint	to solve	to point
to run	to state	to select
to walk	to write	to taste

3. Define the desired behavior further by describing the important conditions under which the behavior should occur.

   -What will the learner be given; (e.g., given a teacher-made puzzle, given three shapes).

   -What will the learner be denied; (e.g., without the aid of an example, without using his/her fingers).

4. Specify the criteria of acceptable performance (the degree) by describing how well (or how much, or at what time) the learner must perform to be considered acceptable. (E.g., given the following 4 puzzles, the child must be able to complete 2 of them.)

These characteristics are essentially the A B C D's of writing objectives (National Media Institutes, 1971). The following items must be specified:

A = audience

B = behavior

C = conditions

D = degree

Examples of Good Instructional Objectives

1. Given three shapes (THE CONDITION), the child (THE AUDIENCE) should be able to identify (THE BEHAVIOR) the triangle in two out of three trials (THE DEGREE).

2. Without the aid of an example, and given a sheet of lined paper and a pencil (THE CONDITIONS), the child (THE AUDIENCE) should be able to print (THE BEHAVIOR) his name on the first line starting at the vertical red border and not extending off the page (THE DEGREE).

3. Given ten objects (THE CONDITIONS) the child (THE AUDIENCE) should be able to count (THE BEHAVIOR) orally up to ten objects (THE DEGREE) by pointing to each object as it is counted.

Value of Objectives

To determine in advance what children are to learn from a particular experience or lesson does take time, but once objectives are established, teaching time is saved and teaching becomes highly effective.

Clear meaningful objectives will enable the child to know exactly what is expected of him. They will also assist the teacher in evaluating the lesson, the teaching procedures, and the students' performance.

EVALUATION: A CONTINUOUS PROCESS IN INSTRUCTIONAL PLANNING*

Evaluation may be the single most important component of classroom instruction. We cannot report progress until we evaluate and we cannot make progress unless we have evaluated.

Evaluation must be a continuous process in instruction. t must be diagnostic; it must be formative; and, it must be summative.

We all evaluate continuously. We judge everything that happens to or is said to us as either "good" or "bad." Too often, unfortunately, we neglect to evaluate systematically on a regular basis.

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*Summary of remarks made by Donna K. Smith, M-A-P Project Director at Workshops: "Utilizing Pennsylvania's Grass Roots Expertise in the Right to Education." Harrisburg, Pennsylvania, March 2, 1973; Lancaster, Pennsylvania, May 18, 1973.

If evaluation is continuous, instruction can be effective. Continuous evaluation can be implemented in the following manner* (further illustrated in Table 1):

Phase 1: EVALUATE THE CHILD'S EXISTING BEHAVIOR.

STANDARDIZED TESTS

--An estimate of how a child has profited from social experiences and how he will perform under similar situations in the future can be obtained from standardized tests. The resultant relative information helps parents and teachers in establishing appropriate expectations. (For example, if Jimmy is 8 but is functioning like a 2-year old, 2-year old behavior of sweeping books from shelves must be tolerated.)

OBSERVATIONAL CHECKLISTS

--A description of how the child is functioning currently (how he approaches a series of tasks) can be derived from checklists based on teacher observation (e.g., M-A-P Skill Development Checklist, see Appendix A).

Phase 2: ESTABLISH BEHAVIORAL OBJECTIVES BASED ON THE CHILD'S ENTERING BEHAVIOR.

--Using the information gained from teacher-evaluations of the child and the child's performance on standardized tests, the teacher should attempt to generate appropriate learning objectives.

--The appropriateness of the established objectives should be re-examined (EVALUATED) in terms of the child's existing behavior prior to the development of the lesson. (For example, if the objective is for the child to engage in toileting practices in the appropriate place, the teacher must determine in advance if the child can even sit on a chair.)

Phase 3: ISOLATE THE TASK TO BE TAUGHT.

--It is most important that priorities for learning be established (e.g., teach the child to explore his environment before you teach him to sit still).

--By breaking down the steps involved in the teaching of each task, the teacher moves gradually from the known to the unknown, and thus avoids making conceptual leaps.

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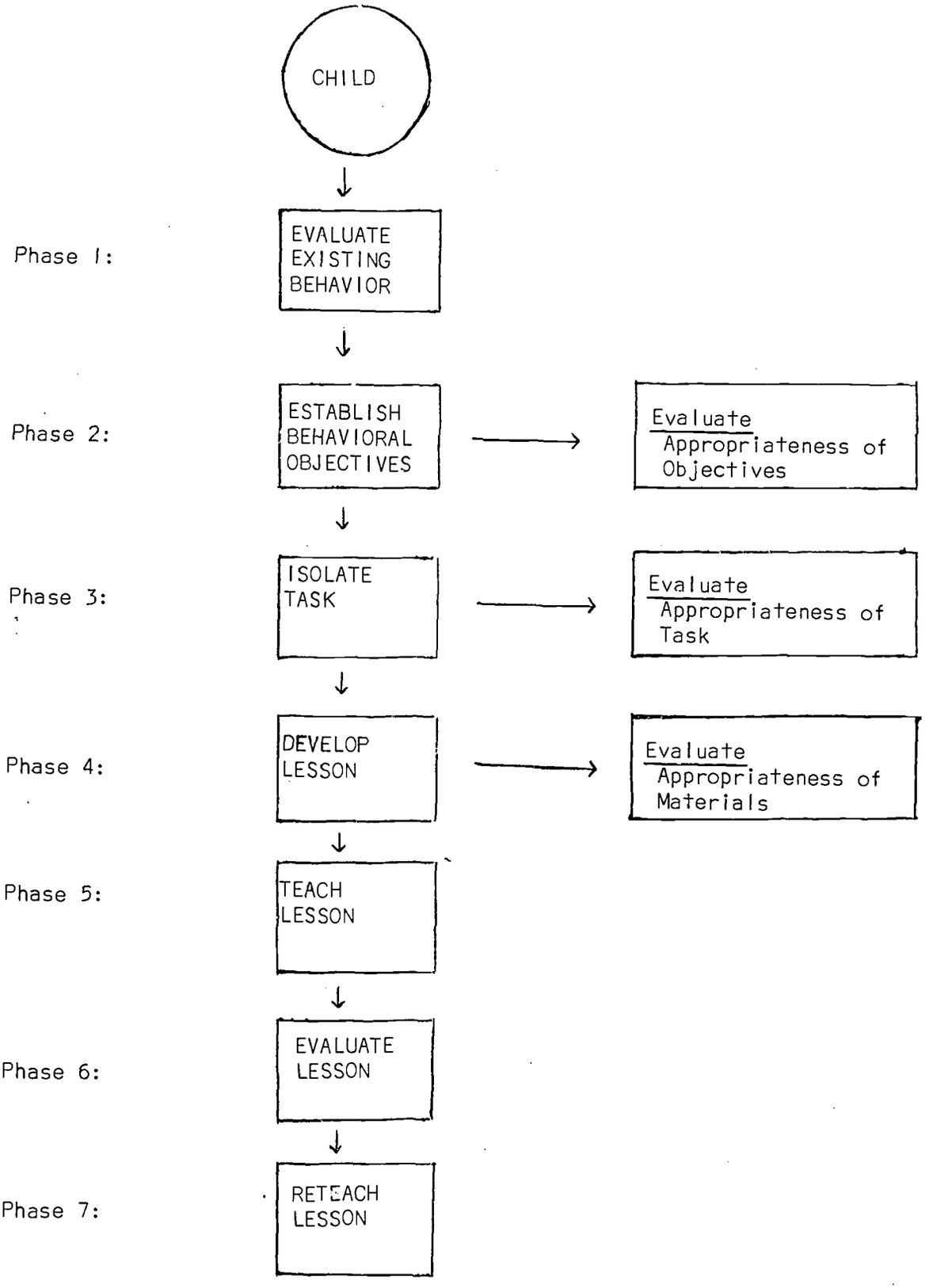
*This instructional approach is a modification of An Outline of Instructional Planning suggested by Anne R. Sanford, Director, HCEEA Preschool Project for Developmentally Handicapped Children, Chapel Hill City Schools, Chapel Hill, North Carolina.

TABLE I

EVALUATION: A CONTINUOUS PROCESS IN INSTRUCTIONAL PLANNING



--The appropriateness of the isolated task should be re-examined in terms of the child's existing behavior prior to the development of the lesson.

Phase 4: DEVELOP THE LESSON.

--Explicit objectives with specific criteria must be established.

--Teacher-made and commercially-produced learning materials must be subjected to intensive evaluation as to appropriateness. (Appropriate materials focus on the task and avoid overstimulating extraneous stimuli.)

Phase 5: TEACH THE LESSON.

--By speaking slowly, introducing one concept at a time, and evaluating the appropriateness of his/her vocabulary, the teacher helps the child avoid the negative experience of failure.

--Positive reinforcement in combination with other behavior modification techniques helps in maintaining the child's attention and in obtaining appropriate responses.

Phase 6: EVALUATE THE LESSON.

--Were the objectives met?

--Were the children interested in the lesson?

--Did all of the children reach the established goals?

----Video-tape can be helpful in enabling the teacher to evaluate his/her approach and in assessing the learning which has taken place.

Phase 7: RETEACH THE LESSON.

--Repetition enhances learning in handicapped children.

--A retaught lesson also provides the teacher with the opportunity to rectify any incorrect concepts that may have developed in the original lesson.

If these steps are followed, the child SHOULD learn. If the child

has not learned, it is our fault not his/hers. Either we have not taught him/her the appropriate task or we have not found the appropriate way in which to teach it. WE MUST THEN RE-EVALUATE WHAT WE ARE DOING.

WRITING EDUCATIONAL PRESCRIPTIONS: AN INDIVIDUALIZED APPROACH

The multiply handicapped young child will seldom show even development in all areas (Jordan, 1971). Thus, it is unlikely that any two children will show enough similar characteristics to be instructed in exactly the same way. Effective instruction, therefore, must be designed to meet each child's individualized needs. This can only be done if learning prescriptions are written for each child.

Based on results of checklists and standardized tests, the teacher should determine what the child can do. Then, learning activities should be designed (see Behavioral Prescription, Appendix B) to enhance the skills which she/he already possesses and to develop new skills. A pictorial record of the child's progress can be helpful; parent permission for this should be obtained (see suggested form, Appendix C).

Social and emotional characteristics must also be considered in the development of learning prescriptions. The child with Down's Syndrome, for example, is hesitant to attempt anything before he is confident that he can do it properly; steps in instruction for this type of child must be very small.

TASK ANALYSIS: A MODEL FOR THE EDUCATION OF THE HANDICAPPED

Learning has traditionally been defined as a relatively permanent change in behavior as a result of reinforced practice (Skinner, 1957). In order

to change the behavior of the young handicapped child, specialized instructional techniques and a considerable amount of time are generally necessary. A teacher must determine initially if it is possible to change the child's behavior (e.g., is the child ready and does he/she have the necessary motor control to learn how to walk) and, if so, must find the appropriate way of effecting the behavior change.

Task analysis can assist the teacher in changing behavior (Sanford, 1973). The process of effective task analysis involves the following steps:

1. IDENTIFYING APPROPRIATE BEHAVIORAL OBJECTIVES;
2. DEFINING THE PREREQUISITES TO PERFORMANCE;
3. DEVELOPING SEQUENTIAL INSTRUCTIONAL TASKS THROUGH THE MANIPULATION OF VARIABLES; and,
4. EVALUATING THE INSTRUCTIONAL PROCESS.

Identifying Appropriate Behavioral Objectives

Skills in writing behavioral objectives are meaningless unless the objectives are appropriate. An objective is appropriate for the young handicapped child if the task it represents:

1. Is at the child's developmental level;
2. Is meaningful to the child's environment; and,
3. Is likely to be reinforced in daily life.

(For example, the young child who can make guttural "h" sounds may be ready to learn to say "hi", a behavior which would be meaningful to his/her environment and reinforced in daily life.)

Defining the Prerequisites to Performance

Analysis of the task to be taught necessitates dividing the objectives into component parts. (For example, if the objective were for the child to touch

"the round object" when presented with three out of five pairs of objects, such as a round and a square, a round and a triangle, the child may need to learn the behavior of "touch," the concept of "round," and the concept of "not round" before he can attain the objective.) The teacher must determine the subcomponents of the particular task which are appropriate for each individual child.

Developing Sequential Instructional Tasks Through the Manipulation of Variables

After the specific sub-objectives of the task have been identified, the teacher must determine the order in which they should be presented. Tasks should be arranged from the simple to complex (e.g., standing precedes walking) and from the concrete to the abstract (e.g., the child should be exposed to a real apple before he can recognize a plastic one; only later can a picture be introduced).

The teacher is also responsible for manipulating variables (characteristics of the environment subject to change) in instruction in such a way that the child becomes most likely to respond correctly. Variables of position, size, texture, color, shape, function, and/or number affect learning.

The young handicapped child does not automatically focus upon the particular dimension of the task that the teacher has planned. He/she may have to be taught to attend to the appropriate stimulus. By keeping a specific dimension constant from task to task and manipulating other variables, the child can be taught easily.

Example:

CONCEPT TO BE TAUGHT: the color "green"

1. Present only the one color (i.e., green) at one time.

2. Present green objects which are various sizes.
   Present green objects which are various shapes.
   Present green objects which are in different amounts.
   Present green objects which are in different textures.

3. Keep everything that is presented green.

Findings from visual discrimination studies with children who were retarded (Zeaman & House, 1963) have shown that variables should be manipulated for handicapped children in accordance with the following:

1. Attention focuses on whole dimensions, not specific cues. The young child who is retarded will attend to color, not blue and yellow; to form, not square and triangle.

2. Position cues (where something is placed) are frequently more easily learned than other types of cues.

3. The uniqueness of a particular stimulus can facilitate discrimination.

4. The bigger the object is that is used for instruction, the better.

5. Distracting stimuli should be kept to a minimum. (Figure-ground ratios must be controlled.)

6. Form is a stronger dimension than color.

7. Symmetry of form enhances discrimination.

8. The more concrete an item is, the easier it is to discriminate it from others (3-dimensional figures are more easily discriminated than otherwise equivalent 2-dimensional figures).

9. The more space there is between two items, the easier it will be for the child to discriminate between them.

10. Pairing the discriminative stimulus with a multidimensionally different stimulus [e.g., a red textured shoe (placed close to the child) with a yellow banana (placed away from the child)] strengthens the attention to the relevant cue.

Evaluating the Instructional Process

After and during instruction, the teacher is responsible for evaluating what has taken place. The following questions should be answered

through evaluation:

1. Were the objectives appropriate for the child?
2. Were the objectives met?
3. Did the learning materials facilitate learning?
4. What items used within the lesson were too distracting?

USING TASK ANALYSIS TO TEACH THE MULTIPLY HANDICAPPED YOUNG CHILD

Behavioral Objective:

When presented with six pairs of objects, the child can visually discriminate and touch the book in response to the verbal direction, "touch the book" in four out of the six trials.

Prerequisites to Performance:

1. The child must demonstrate attending behavior (eye contact).
2. The child must possess (or learn) the concept "touch."
3. The child must learn "book."

Sequential Tasks in Discrimination Hierarchy for Teaching the Concept "Book":

1. Various books (different sizes, shapes, etc.) are presented singularly and accompanied with the singular verbalization "this is a book" (everything else is removed).
2. Various colorful pictures of books are shown accompanied by the verbalization "this is a book" (not big book, picture book, etc., just "this is a book").
3. A real book is shown with an apple. (As teacher touches the book, she says "this is a book.")
4. Various other objects are paired with the book. (Start with highly dissimilar objects and move to more similar items.)

Evaluation of Lesson:

1. Was the objective appropriate for the child?
2. Did the child understand the concept "touch?"
3. Did the child touch the "book" four out of six trials?
4. Did the learning materials (books, other objects) facilitate focusing on the task?
5. What items used within the lesson were too distracting?

CLASSROOM MANAGEMENT: MODIFYING THE BEHAVIOR OF YOUNG HANDICAPPED CHILDREN*

Behavior management with any group of exceptional children can be a challenge. This task, however, becomes significantly more difficult when working with multiply handicapped children. The wide diversity of needs and problems exhibited by these children makes it impossible for a teacher to establish a uniform approach in handling them.

There are several reasons why a behavior modification program would seem particularly well-suited for a class of young multiply handicapped children:

1. Inherent in a contingency management system is the requirement to recognize and "spell out" in behavioral terms the individual problems and needs of each child. Although the philosophy of individual differences is accepted throughout education, many classroom approaches fail to put it into practice. When using a contingency management program appropriately, this cannot happen.
2. Behavior modification programs have been shown to be effective in changing the behavior of children with a wide range of cognitive abilities. This can also be done when children who have various handicaps are assigned to a single classroom setting.

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*This section was compiled by Dr. John P. Quirk, Associate Professor of Educational Psychology, Indiana University of Pennsylvania, Consultant to the M-A-P Project.

3. Special education classes, due to the low pupil/teacher ratio, are well able to provide the consistency and flexibility necessary for the effective implementation of many behavioral strategies.

Steps in Implementing a Contingency Management Program

1. Develop an understanding of behavior modification jargon and techniques:

   a. Pay Offs (Rewards)

      If a behavior is strong (occurs frequently), it is being PAID OFF. A PAY OFF is any personal, situational, or environmental consequence or reaction to behavior that tends to increase the frequency or probability of the behavior (e.g., Why do you work every day? What do you do when a child is crying?). When looking for the cause of frequent behaviors, we must look at what happens immediately after the behavior.

      Types of pay offs are only limited by your imagination.

      (1) Primary reinforcers - physical contact, activity, food, candy, etc.

      (2) Token reinforcers - stars, check marks, names posted.

      (3) Social pay offs - attention.

      (4) Privileges.

   b. Extinction

      Extinction is a technique of terminating the behavior by not accompanying it with a pay off and provides a way of breaking bad habits (e.g., ignore a baby's cries and the cries stop). When attempts are made to utilize extinction, the behavior may initially become worse because of frustration.

      Finding out what the pay off is for a particular behavior is difficult. Even when it is determined, extinction is a gradual process. Inappropriate behavior is built up over several years through intermittent reinforcement. (E.g., a child acts out to get attention and occasionally gets it.)

      Extinction cannot be used:

      (1) When the behavior is intolerable.

      (2) When the behavior could become contagious.

(3) When the pay off for the behavior is difficult for the teacher to control.

Problems resulting from the use of extinction:

(1) Elimination of the pay off may not be consistent or complete.

(2) Spontaneous Recovery - after a vacation or illness, the negative behavior may return.

(3) Situational Changes - a new child in class or a new staff member may bring back the behavior.

(4) Attaching the wrong pay off may result in extinction being ineffective.

c. Competing Behavior

Switching the pay off to an alternative behavior involves the determination of competing behavior. In most situations, children have two or more alternative behaviors. The behavior which is reinforced most consistently will be the one the child will show. (E.g., Billy can kick other children or try to relate positively to them; which one gets the teacher's attention or is easier for him to do?)

Switching the pay off to a competing habit has two effects:

(1) We extinguish misbehavior by stopping the pay off.

(2) We enhance the desired behavior by arranging the pay off to follow an appropriate behavior.

d. Negative Reinforcement or Negative Pay Off (Punishment)

Sometimes extinction cannot be used. If you use a negative pay off, you MUST:

(1) Administer it immediately after the behavior.

(2) Apply it consistently (even more so than positive pay offs).

(3) Make it reasonably intense, within the ethical bounds of working with children. (Only use the punishment on the target behavior; avoid punishing for trivial matters).

Verbal reprimands in many cases are the *least* effective. The child often turns off a nagging parent. "Make the punishment fit the crime."

Using pay offs with severely retarded children involves devising pay offs that are clearly associated with the desired behavior and distinguishable from other reinforcements. Social reinforcers have to be made very distinguishable so the retarded child can tell the difference between approval and disapproval.

e. Shaping and Modeling

Techniques to develop or elicit a desired behavior:

(1) Shaping - reinforcing successive approximations of the final behavior.

(2) Modeling - using other children that have the desired behavior as models for children who do not.

2. Evaluate the ways in which you view a child's problem behavior and how you respond to it. It is suggested that the teacher:

a. Delineate in specific behavioral terms a hierarchy of problem behaviors for each child.

b. Focus on one problem behavior at a time and concentrate efforts to effect change in a single area.

c. Choose one competing behavior that you want to increase for each child.

d. Take base rate data (how often the behavior occurs) on each behavior. (See sample chart on page 27.)

e. Decide what the pay off currently being received by the child for the undesirable behavior is.

f. Determine the pay off which could be used to increase the desirable behavior.

g. Decide if you should use punishment or extinction for reducing the undesirable behavior.

h. Decide who should administer the chosen pay offs and how it should be done (coordinate staff).

i. Continue to take periodic base rate data.

3. Place little concern on the various diagnostic labels of the children. Overt behaviors and the most effective ways to change them should be the primary focus. Individual differences come into play, however, in determining the level of behavior that could reasonably be expected to be achieved by each child, and the type of reinforcement that would be most effective.

Sample Base Rate Data Sheet

Name _____ Date Observed _____

Age _____ Name of Observer _____

BEHAVIOR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Negative Behavior: Kicking-Any aggressive movement toward another child with his feet	9:00-9:15 Activity:	10:30-10:45 Activity:	9:30-9:45 Activity:	10:15-10:30 tivity:	11:30-11:45 Activity:
	1:00-1:15 Activity:	2:15-2:30 Activity:	1:30-1:45 Activity:	1:15-1:30 Activity:	2:45-3:00 Activity:
Negative Behavior: Hair pulling-Manually grabbing and pulling it	9:00-9:15 Activity:	10:30-10:45 Activity:	9:30-9:45 Activity:	10:15-10:30 Activity:	11:30-11:45 Activity:
	1:00-1:15 Activity:	2:15-2:30 Activity:	1:30-1:45 Activity:	1:15-1:30 Activity:	2:45-3:00 Activity:
Positive Behavior: Smile-Smiling at child while not hurting him Touch-stroking or touching gently Hugging-Holding without trying to hurt other child	9:00-9:15 Activity:	10:30-10:45 Activity:	9:30-9:45 Activity:	10:15-10:30 Activity:	11:30-11:45 Activity:
	1:00-1:15 Activity:	2:15-2:30 Activity:	1:30-1:45 Activity:	1:15-1:30 Activity:	2:45-3:00 Activity:

4. Effect a stimulus change procedure by making adjustments in the structure and procedures of the classroom in order to facilitate the exhibition of appropriate behavior by the children. It is suggested that:

   a. The children be divided into groups (with similar intellectual potential and common behavior problems) for many of the activities during the day. If there is a wide disparity in the abilities of the children, grouping is essential.

   b. Severely limited children be given extensive supervision and structure during free play time.

   c. The staff coordinate their efforts in order that the children have a predictable environment within which to function.

Behavior modification can alter some behavior but classroom structure can also be a significant help. A classroom needs to be structured to facilitate a child's chances of showing appropriate behavior so that it can be reinforced.

Not all of the children within a class may need, or would profit by, a specific contingency program. The teacher's increased understanding of the relationship between a child's behavior and its consequences, however, should result in a more effective overall approach to the management of children.

INSTRUCTION THROUGH IMITATION: A USEFUL TECHNIQUE WITH NONVERBAL CHILDREN

Imitative instruction can be particularly effective for children who possess little or no expressive language. It may be applied in any area of instruction and involves the following steps:

1. Sit at a table across from the children.
2. Use a reinforcer that each child will enjoy (e.g., raisins; a baster filled with juice so that you can distribute a little at a time).
3. Start with simple motor imitations.
4. Always use the same verbal command "Do this."

5. Repeat much more than you think is necessary.

6. Progress very slowly (this may be painful for the teacher but very useful to the children).

7. Stay on the same task until the child(ren) can do it approximately 10 times in a row without error.

General Procedures

1. Say, "Do this."

   Slap the table with both hands. Wait 2-3 seconds. If the child responds correctly, reward immediately. Repeat the task several times. If necessary, help the child perform the response. Reward often and enthusiastically even when you have to assist the child with the response.

2. After the child is successful consistently on one motor response, add several others (e.g., clapping hands, putting hands on head).

   Go through each of these individually. Progress at the rate of the slowest child. When the children can follow each command consistently, start mixing them up. Be sure you are providing a simple and precise model.

3. Progress to more refined motor tasks. (Place 2 blocks before each child. Use 2 blocks and demonstrate. Use the same verbal command, "Do this." Then: stack 1 on top of the other; later, place them side by side; even later, slide one under the table; then, pick up both.)

   You can add a third block and do more activities. Also, you can do many other activities with the 2 blocks. Be innovative throughout the entire program, but be sure to introduce only one activity at a time and continue to repeat this activity frequently.

4. Do motor tasks invoiving the face (e.g., use the same verbal command, "Do this." Touch nose. Open mouth wide. Touch ears. Stick out tongue. Shake head.)

   Be sure always to provide a good model the children can easily imitate. Add similar activities. Teach each task first in isolation and then mix it in with other previously learned behaviors.

5. Start on vocalizations. Say "Do this.", then make the sound "MMMM." Repeat many times.

Teach sounds children already can make first, even if the sounds are only gurgles or groans, i.e., "uh-uh-uh." Make silly sounds or animal sounds they might enjoy.

NOTE: CONSTANTLY REPEAT ACTIVITIES 1-5 AND MIX UP THE ACTIVITIES AS YOU PROGRESS THROUGH THE PROGRAM. REMEMBER YOU ARE TEACHING THE CONCEPT OF IMITATION AND YOU NEED TO MOVE VERY SLOWLY. THE CHILDREN NEED MANY OPPORTUNITIES FOR SUCCESS. STAY AT THEIR LEVEL.

IF THEY MAKE MANY MISTAKES, YOU ARE EITHER GOING TOO FAST OR NEED A BETTER REINFORCER. DO NOT BLAME THE CHILD.

6. Teach speech sounds. For example:

m	d	w
p	f	t
b	s	h
k	sh	la

Add a new sound only after the previous ones have been fully established. After you have established 10-15 sounds, begin teaching words.

7. Begin with simple words. Teach one word at a time, e.g.,

mama	no	daddy
me	bye-bye	go
more	yes (this is hard)	eat
hi		

Add new words after the previous ones have been learned. Be sure the words you add are meaningful to the child.

8. After the child can imitate at least 25 words, start naming tasks. Present simple pictures. Then ask the children: "What's this?" Show one picture at a time. Help them at first, e.g., "Say cat." Then later wait for a spontaneous answer.

9. Teach phrases imitatively, then spontaneously. For example:

I do	thank you	get up
come here	good girl/boy	
go home	sit down	

10. Teach sentences (start with short, simple ones and gradually increase length).

BE SURE THAT:

1. The reward is immediate and generous.

2. You call for and reward small approximations.

3. You reward frequently in small amounts.

4. You are clear in presenting the models to be imitated.

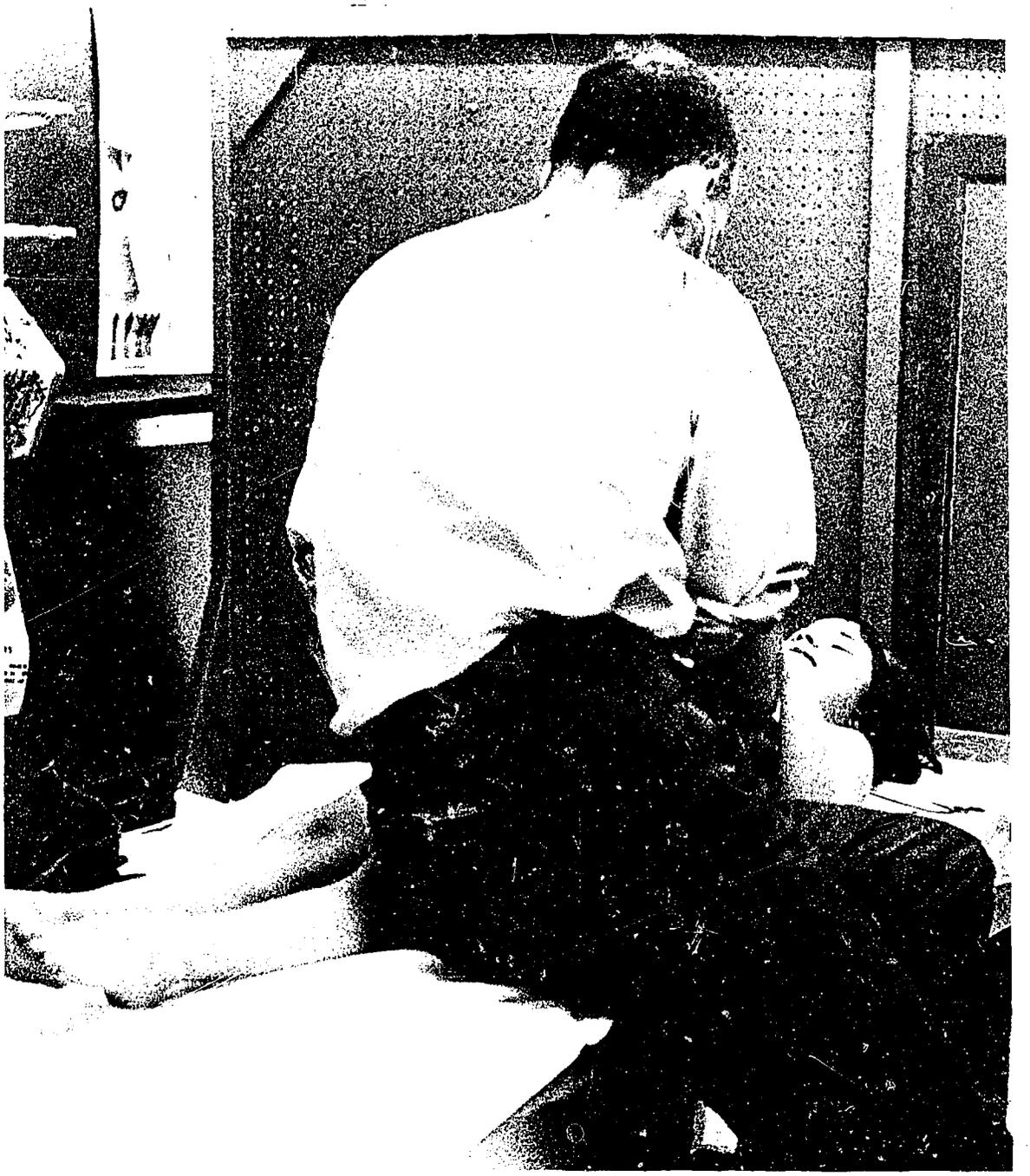
5. You are precise in your commands.

6. You wait to wean the child from the reward after the entire program is completed. (Even though you think the child will perform without a reinforcer, continue to give it at times.)

7. You do not tire the group. Stop the training session at the highest level of performance.

CHAPTER 3

TOWARD A BETTER UNDERSTANDING OF HANDICAPPED CHILDREN



PSYCHOLOGICAL INFORMATION

Whenever possible, standardized test data should be obtained on each child. The administration of such tests as the Vineland Social Maturity Scale, Cattell Infant Intelligence Scale, Peabody Picture Vocabulary Test, McCarthy Scales of Children's Abilities, the Columbia Mental Maturity Scale, and/or the Stanford Binet Intelligence Scale (Form L-M), by a qualified psychologist, can yield significant information about a child's sensorimotor and cognitive skills. The results of these tests in combination with information obtained from observational checklists are highly beneficial in developing the appropriate educational prescription for a particular child.

MEDICAL INFORMATION

In order for a teacher to write appropriate educational prescriptions for multiply handicapped children, a full understanding of each child's medical history is necessary. It is recommended that the following medical information* be obtained on each child prior to enrollment in a school program:

1. Delivery

    a. Were there any complications during the pregnancy?
    b. Was the pregnancy full-term?
    c. What was the weight of the baby at birth?
    d. Were there any complications in the birth process?
    e. Did the baby accompany the mother home from the hospital?
    f. Did the child nurse or feed well as a newborn?

2. Developmental History

    a. When did the child begin to sit up unassisted?
    b. At what age did the child's first teeth erupt?

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*Recommended by Dr. James Greenbaum, M. D., Kittanning, Pennsylvania 16201, February 9, 1973; and, Dr. Henry Mitchell, M. D., Indiana, Pennsylvania 15701, January 11, 1973.

c. When did the child begin to eat solid food?
d. When did the child first begin to walk?
e. Is the child toilet-trained?
    If so, when was the process completed?
f. What are the child's medical problems (if any)?

3. Family History

a. How old was the mother at the child's birth?
b. Is there any history of particular illnesses in the family?
c. How many children are there in the family? (Names, Ages)
d. How have the child's siblings developed?

4. Medication

a. Is the child subject to seizures:
    If so, how frequent?
    What kind?
    Possible identifying signs?
b. Is the child taking any medication regularly?
    If so, what?
    Amount?
c. Has the child taken any medication in the past?
    If so, what?
    Amount?

5. Habits at Home

a. Does the child nap regularly?
    If so, for how long?
b. How many hours of sleep does the child receive at night?
c. What kind of foods does the child prefer?
d. Does the child have regular bowel movements?
    When?
e. What kinds of toys appeal to the child?

6. Availability of Medical Information

a. Are there any existing evaluations of the child's physical or intellectual status available?
b. Who is the child's pediatrician?
    Phone number?
c. Are there other physicians (specialists) who have had contact with the child? (Names, Addresses, Phone numbers)

Most of this information may already be on file in a physician's office. School personnel can obtain it by receiving authorization from the parent or

guardian for disclosure of medical records, reports, and other confidential information. (See suggested form in Appendix D.)

TECHNIQUES OF USING A PHYSICIAN AS A CLASSROOM CONSULTANT

Although most pediatricians maintain busy and hectic schedules, they are still often very willing to meet with teachers to discuss the strengths and limitations of the children in the classroom. A physician may be used as a consultant in the following ways:

1. To observe the children in class and possibly examine any child who seems to be functioning inadequately (from a medical viewpoint);
2. To consult with the teachers on any limitations which, because of medical reasons, should be imposed on the children's activities (e.g., swimming);
3. To explain to the teachers how particular medications which children take regularly can be expected to affect them; and,
4. To suggest any kinds of classroom activities which would be medically appropriate or beneficial for the children.

SEIZURES IN CHILDREN

Seizures are more common in children than in adults; about 10% of all children have experienced a seizure prior to reaching adulthood. Seizures are also more likely to be found in multiply handicapped young children than in their more normal peers; because of this frequency of occurrence, knowledge and understanding of the existing types of seizures, and the approaches which can be taken in dealing with them, can be particularly helpful to the classroom teacher of young multiply handicapped children. The information listed below (Goldenson, 1970; Renuart, 1973) is designed to assist teachers in understanding seizure-prone children.

Seizure Types and Characteristics

1. Major Motor Seizures

   a. Grand Mal - Tonic-Clonic

      -unconsciousness and post-seizure drowsiness
      -initial stiffening (tonic), followed by jerking of body (clonic)
      -possible aura/"warning" (e.g., bad taste in mouth beforehand)
      -possible loss of bowel and bladder control

   b. Grand Mal - Atonic

      -unconsciousness
      -loss of muscle tone
      -possible aura
      -possible loss of bowel and bladder control

   c. Focal Motor

      -involvement of one side or part of body in jerking
      -often no loss of consciousness
      -affects parts of body which occupy largest part of cortex (i.e., thumb, corner of mouth, big toe)

   d. Febrile Convulsions

      -last a maximum of 5 minutes
      -occur as fever rises
      -occur in children between the ages of 6 months and 4 years

   e. Status Epilepticus

      -person suffers one seizure after another with no intervening period of consciousness
      -can be controlled medically

2. Minor Motor Seizures (tend to be frequent-as many as several dozen/day, first signs usually appear between four and eight, may lead to Major Motor Seizures later in life)

   a. Petit Mal

      -lapse of consciousness for less than 30 seconds
      -no confusion or drowsiness
      -not degenerative
      -more common in females
      -often improve after puberty
      -may go unnoticed

b. Myoclonic

-degenerative
-frequently associated with brain damage
-jerking

c. Akinetic

-sudden momentary loss of muscle tone
-"drop attack"

3. Psychomotor (Temporal Lobe)

-involvement in seemingly purposeless, inappropriate, repetitive behavior (e.g., chewing, swallowing movements, incoherent speech)
-may appear conscious during seizure
-may have aura
-complete amnesia of episode

4. Seizure Equivalents

-breath-holding spells
-migraine
-irresistable sleep attacks
-sudden collapse of all voluntary muscles

Treatment

Chemotherapy (treatment through anticonvulsant drugs) appears to be one of the best approaches for controlling or reducing the frequency and severity of seizures. Certain medications are more appropriate for the control of particular kinds of seizures than others. In addition, a child who suffers from seizures may adjust better to one medication than another. Small doses of two drugs have been found to be more advantageous for many children than an increased dosage of a single drug (Renuart, 1973).

Possible Side Effects of Drugs Commonly Used for Seizure Control

Drug	Possible Side Effects
1. Dexedrine	insomnia, irritability, loss of appetite
2. Dilantin	nystagmus (rapid eye movements), drowsiness, tremor, rash, ataxia (uncoordinated movements especially in walking or grasping)
3. Gemonil	drowsiness, irritability, rash, dizziness
4. Mesantoin	drowsiness, ataxia, nystagmus, tremor, rash
5. Milontin	drowsiness, dizziness, rash, ataxia
6. Mysoline	drowsiness, ataxia, irritability, fatigue, rash, double vision
7. Phenobarbital	drowsiness, irritability, rash
8. Tridione	hiccups, ataxia, rash, drowsiness, abnormal intolerance of light
9. Zarontin	gastric distress, nausea, dizziness, drowsiness

EEG Patterns

An electroencephalograph (EEG) is purposeful in giving base-line information about the degree of neurological impairment in a child or an adult. It does not always differentiate between "seizure-prone" and "non-seizure-prone" individuals. Many children with known "seizures" exhibit normal EEGs; whereas, several "normal children" have abnormal EEGs.

National Epilepsy League Pharmacy Service

The National Epilepsy League offers a Pharmacy Service, at 25% below regular prices, to provide all types of epileptic medications to children or adults who suffer from seizures. This non-profit self-supporting mail service may be available by paying membership dues of $1.00 per year.

For further information, contact:

N. E. L. Service
116 South Michigan Avenue
Chicago, Illinois 60603

Procedures for Seizure Control

Although a child may suffer a first seizure in school, it is often likely that he/she has experienced seizures or exhibited seizure-like behavior at home. The teacher should obtain the following information about each child as close to the beginning of the school year as possible:

1. Is the child subject to seizures? It may be necessary to clarify by describing passing-out or fading-out behavior.
2. What kind of seizures does the child experience?
3. How frequent are the seizures?
4. Are there any identifying signs of the seizures?
5. Are the seizures being controlled through medication?
    a. What kind of medication?
    b. When is the medication administered?
    c. What is the dosage?

If there are children within a classroom known to suffer from seizures, over-excitement and over-stimulation, which could affect the child's seizure control, should be avoided. Plastic helmets (e.g., like football helmets) should be worn regularly by the child who has frequent seizures.

If and when a grand mal seizure should occur, the teacher should:

1. Maintain composure.
2. Break the fall of the child, if able to do so.
3. Not try to restrain the child once he/she is on the floor, but move objects and furniture away from the child.

4. Help the child to a quiet place (out of class' view) to rest, when consciousness is regained.

5. Answer the questions of the class as they arise.

Petit mal seizures are seldom evident. Thus, the teacher seldom needs to take special precautions during their occurrence.

For further information, films, and pamphlets on seizures, write:

National Easter Seal Society
for Crippled Children and Adults
2123 West Ogden Avenue
Chicago, Illinois 60612

National Epilepsy League
116 South Michigan Avenue
Chicago, Illinois 60603

DENTAL CARE FOR YOUNG HANDICAPPED CHILDREN

Multiply handicapped children have many problems without the pain and discomfort caused by tooth decay. Tooth decay results from the accumulation of plaque on the teeth, caused by food and bacteria, and can be prevented through an effective dental care program.

Steps in the Development of an Effective Dental Care Program*

1. Educate the parents. Parents must endorse the concept of preventive dentistry and understand the effects of nutrition before an effective program can be established.

2. Educate the teachers.

3. Demonstrate appropriate tooth-brushing techniques to teachers and parents.

4. Have teachers and parents brush their own teeth appropriately under a dentist's supervision.

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*Suggestions made by Dr. Robert M. Raemore, Dentist, and M-A-P Project Consultant.

5. Begin tooth-brushing instruction with the most able child.

6. Use disclosure tablets to identify what areas need to be brushed.

7. Permit the child to play with the toothbrush initially.

8. Position the child with his/her back to you (leaning the head back on your arm) so that you can anchor the child's head and eliminate distractions while brushing his/her teeth. (It might be necessary to even lay the child on the floor while brushing the child's teeth.)

9. Use only water on the toothbrush initially. A foreign substance such as a tooth brush is enough to adjust to without compounding the problem by introducing tooth powder or toothpaste.

10. Brush the outside, inside, and flat places of all teeth at least once a day. At other times, let the child brush his own teeth.

11. Use the top end of the brush on the bottom teeth.

12. Spend three minutes daily brushing the child's teeth.

INFORMATION ON HANDICAPPING CONDITIONS

Various agencies provide information for parents and teachers on handicapping conditions. To get answers to specific questions and to obtain information on the needs of handicapped children, write:

CEC Information Center
The Council for Exceptional Children
Suite 900
1411 South Jefferson Davis Highway
Arlington, Virginia 22202

For information on children who are auditorially handicapped, write:

The Volta Bureau
1537 35th Street, N. W.
Washington, D. C. 20007

For information on children who are health-impaired, write:

American Academy of Pediatrics
1801 Hepman Avenue
Evanston, Illinois 60204

Epilepsy Foundation of America
733 15th Street, N. W., Suite 1116
Washington, D. C. 20005

Muscular Dystrophy Association of America
1790 Broadway
New York, New York 10019

National Multiple Sclerosis Society
257 Park Avenue, South
New York, New York 10010

For information on children who are emotionally disturbed, write:

League for Emotionally Disturbed Children
171 Madison Avenue
New York, New York 10017

National Association for Mental Health
10 Columbus Circle
New York, New York 10010

National Society for Autistic Children
621 Central Avenue
Albany, New York 12206

For information on children who are mentally retarded, write:

National Association for Retarded Children
2709 Avenue E
Arlington, Texas 76011

For information on children who are orthopedically handicapped (crippled), write:

National Easter Seal Society
2123 West Ogden Avenue
Chicago, Illinois 60612

National Foundation - March of Dimes
1275 Mamaroneck Avenue
P. O. Box 2000
White Plains, New York 10602

United Cerebral Palsy Association
66 East 34th Street
New York, New York 10016

For information on children who are speech-impaired, write:

American Speech and Hearing Association
9030 Old Georgetown Road
Bethesda, Maryland 20014

The National Association of
Hearing and Speech Agencies
919 18th Street, N. W.
Washington, D. C. 20006

For information on children who are visually handicapped, write:

American Foundation for the Blind
15 West 16th Street
New York, New York 10011

American Printing House for the Blind
1836 Frankfort Avenue
Louisville, Kentucky 40206

Association for the Education of
the Visually Handicapped
711 14th Street, N. W.
Washington, D. C. 20005

National Society for the Prevention of Blindness
16 East 40th Street
New York, New York 10010

CHAPTER 4

MOTOR SKILL DEVELOPMENT

SKILLS DEVELOPED IN THE MOTOR DIMENSION OF THE M-A-P PROGRAM FOR THE EARLY CHILDHOOD EDUCATION OF THE MULTIPLY HANDICAPPED

Gross Motor Skills

1. Raising Head
2. Rolling Body
3. Sitting
4. Crawling
5. Standing
6. Walking
7. Running
8. Jumping
9. Hopping
10. Walking on Balance Beam
11. Skipping
12. Using Stairs
13. Playing Ball
14. Riding Tricycle or Toy Car

Self-Care Skills

1. Dressing
   a. Unbuttoning
   b. Buttoning
   c. Snapping
   d. Zippering
   e. Tying Knots
   f. Tying Bows
   g. Removing Outer Clothing
   h. Putting on Outer Clothing
2. Washing Hands
3. Toileting
4. Eating
5. Grooming
6. Caring for Clothing
7. Putting Away Toys

Manipulative Skills

1. Moving Hands
2. Moving Fingers
3. Grasping
4. Showing Hand Preference
5. Manipulating Paper
6. Drawing
7. Coloring
8. Cutting
9. Playing in Sand
10. Painting with Fingers
11. Painting with a Brush
12. Pasting
13. Building with Blocks
14. Putting Puzzles Together
15. Stringing Beads
16. Playing with Pegs
17. Playing with Clay
18. Playing with Trucks, Cars, Toys
19. Playing Musical Instruments

Body Awareness Skills

1. Showing Self-awareness
2. Naming Body Parts

ROLE OF A PHYSICAL THERAPIST*

*Suggested by Mr. Thomas Zaucha, Certified Physical Therapist; Consultant to the M-A-P Project, 1972-73.

Physical therapy, as defined by the American Physical Therapy Association, is the use of physical, chemical, electrical, and other agents such as heat, light, and sound, in combination with therapeutic exercise, to aid total rehabilitation.

Physical therapy for young multiply handicapped children differs considerably from the therapy which may be administered to children or adults with unitary problems or limitations. Since many multiply handicapped children lack communication skills, the therapist is unable to ask or even demonstrate (because the child is unable to understand) what he/she wants the child to do; instead, he/she must do almost everything for (or to) the child, while the child remains passive. In addition, the child is frequently unable to communicate his/her discomfort; thus, the therapist has to pay particularly close attention to the child's slightest reaction.

Since multiply handicapped children develop more slowly than their normal agemates, progress in therapy will only be shown over long periods of time (i.e., it may take many years). It is essential, therefore, that realistic objectives be established and that excessive patience be exhibited, as the child attempts to make progress.

Although the full-time availability of a physical therapist who could work with the children on a daily or weekly basis would be ideal, this resource person may not always be available to the school. The following approach which uses the physical therapist as a consultant to a program for young multiply handicapped children has proved to be quite workable (ARIN M-A-P Project, 1972-73).

A Physical Therapist as a Consultant

A physical therapist, on a consultant basis, can not only be an administrator of standard treatments; he/she also must be ingenious enough to develop programs that are not only physically beneficial, but interesting and exciting for the child. He/she must be a teacher, able to instruct and direct not only children, but the teachers, aides, and members of the child's family. He/she must seek the end result of physical maturation through games and exercises which divert the attention of the child to the enjoyable situation, not only toward the desired goal.

Phase 1: INITIAL INDIVIDUALIZED ASSESSMENT OF EACH CHILD'S NEEDS FOR PHYSICAL THERAPY BY THE PHYSICAL THERAPIST

The physical therapist should:

1. Test for the range of motions of all joints;
2. Test for musculature strength of all involved and uninvolved extremities;
3. Check for structural deformities in body alignment;
4. Check for gait deviations;
5. Check for activities of daily living routines (such as wheelchair maneuvering or transfer techniques); and,
6. Test for neurological development.

Phase 2: ESTABLISHMENT OF REALISTIC OBJECTIVES WHICH THE CHILD CAN BE EXPECTED TO ACHIEVE

Once the evaluation has been accomplished, the therapist then decides what program must be initiated to achieve the goal desired. There must be short range goals as well as long range ones. The program she/he institutes should in some way include the following goals:

1. To increase the range of motion;
2. To increase strength in certain muscles;
3. To reduce structural deformities through exercises or braces;
4. To correct all poor walking patterns;
5. To achieve independence of severely-involved children by training them to maneuver their own wheelchairs, etc; and,
6. To enhance neurological development.

(Oftentimes an adaptive physical education program can most adequately meet the needs of some children and be more appropriate for the child than a rigorous routine of exercises. The physical therapist should be involved in making this judgement.)

Phase 3: LISTING OF EXERCISES WHICH THE CHILD SHOULD EXPERIENCE REGULARLY, WITH DETAILED INSTRUCTIONS

Once the program has been established, instructions on the activities which the child should perform at school and at home must be developed. Teachers as well as parents must be taught all phases of the program so that follow-through therapy may be carried out.

Phase 4: TRAINING OF TEACHERS, AIDES, AND PARENTS

Training of the teachers, aides, and parents in exercising the child should consist of demonstrations, showing what they can do to help the child and to help the child help himself.

Phase 5: SUPERVISED EXERCISING OF THE CHILD

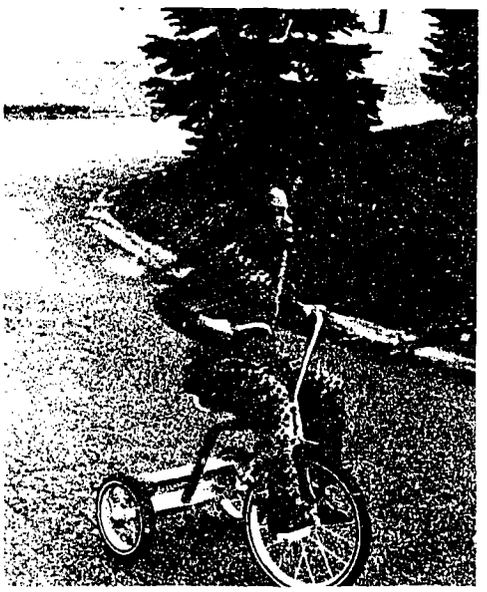
The child should be exercised by the teacher and/or aides under the supervision of the physical therapist. Once the therapist is satisfied that all parties involved are knowledgeable, he may then decide that it is time to leave the participants on their own and return periodically to check the program to insure that all is going as planned or to revise the program as short-range goals are accomplished.

Phase 6: INDEPENDENT EXERCISING OF THE CHILD ON A REGULAR BASIS BY THE TEACHER OR AIDES

Phase 7: PERIODIC RE-ASSESSMENT OF THE CHILD'S PROGRESS AND EVALUATION OF THE TEACHER'S TECHNIQUES BY THE PHYSICAL THERAPIST

All in all, working with handicapped children can be one of the most rewarding phases of physical therapy. It can also be the most frustrating, since it must be kept in mind that a total cure will not be accomplished through physical therapy. The end result, however, will be a child who is living and working to his maximum capabilities and living with what he can physically accomplish.

GROSS MOTOR SKILL DEVELOPMENT



Many of the activities incorporated into a program for young handicapped children should involve movement. Young children cannot be expected to coordinate small muscle movements or engage in sedentary learning tasks until they have developed gross motor skills. Prerequisites for any kind of behavior are muscular and motor responses (Kephart, 1971). Development proceeds cephalocaudally (from head to toe), proximo-distally (from the axis of the body outward), and from the ability to engage in general activity to the ability to engage in specific activity; therefore, activities which involve control of the head, use of large muscles, and generalized body movements should be included in the early instruction of young handicapped children.

Several opportunities should be provided each day for the child to engage in supervised gross motor activities. If handicapped children do not learn to use their bodies when they are young, their muscles will atrophy and they will be unable to develop themselves later.

Objectives*

A movement-oriented program should be designed

1. To aid the growth and development of the child through the use of large muscle movements.

2. To increase the efficiency of the physical body by:
   a. Increasing strength;
   b. Increasing muscular endurance;
   c. Increasing cardio-respiratory endurance;
   d. Increasing coordination;
   e. Increasing flexibility;
   f. Correcting postural faults; and,
   g. Improving habits.

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*Suggestions made by Dr. Mary Alice Magruder and Mr. Samuel Cross, M-A-P Project Consultants in Adaptive Physical Education. (Based on actual work with the ARIN classes for young multiply handicapped children.)

3. To increase kinesthetic perception by:
   a. Improving balance;
   b. Developing an orientation in space;
   c. Developing knowledge of the location of body parts with the use of vision; and,
   d. Utilizing the correct amount of muscular force for the task.

4. To increase the individual's skill level.

5. To form patterns of good body mechanics.

6. To effect social interactions.

7. To enable children to have fun.

Program Needs

1. A large indoor play space.

2. An outdoor play area.

3. Equipment (e.g., balls, rings, bean bags, jump ropes, etc.).

4. A teacher who is knowledgeable about the human body, who could carry out the above objectives due to an extensive backgroun in physical movement, and who considers the whole child--his emotional, mental, and physical needs and interests.

5. Assistants who can work with the children on a one-to-one, or a one-to-two or-three basis.

6. Activities which involve the whole body, are geared to the individual's capacity, progress in difficulty, and are meaningful and interesting. They should enable the child:
   a. To know who he is;
   b. To know who likes and responds to him;
   c. To know what he can do;
   d. To know he can accomplish things;
   e. To be rewarded, in some way, when he does well;
   f. To move;
   g. To play;
   h. To communicate;
   i. To be happy; and,
   j. To have the opportunity to try to find his strengths and limitations.

Physical Fitness

Information regarding the child's muscular fitness, organic fitness, and physique (Hayden, 1964) should be obtained on each child and recorded in some manner. (See the chart in Appendix E.)

1. Muscular Fitness

   This refers to the strength or force which can be produced by specific muscle groups and to their ability to work hard for prolonged periods of time (muscular endurance).

2. Organic Fitness

   Organic fitness refers to the efficiency and capacity for performing endurance tasks which involve many groups of muscles at the same time. Running and swimming do this. Performance on such tasks is not determined primarily by qualities of the muscles themselves, but by the ability of the lungs, heart, and circulatory system to supply them with food and oxygen, and to remove the waste products when this food is burned.

3. Physique

   This term includes the amount and distribution of body fat, the size and proportion of the bones, and the size and density of the muscles.

Evaluation

In order to measure progress in gross motor skill development (as in the development of other skills), evaluation must be a continuous process. Utilization of observational devises such as the M-A-P Skill Development Checklist (see Appendix A), Tests of Motor-Perception (see Appendix F), Checklists for Evaluating Form (see Checklist for Evaluating Walking Form, Appendix G), and Specific Skills Checklists (see example in Appendix H), at the start of the school year and at periodic intervals throughout the year, enables the teacher to establish appropriate learning objectives and activities for each child.

The administration of The Cratty Six-Category Gross-Motor-Test (Cratty, 1969), a measure which has been standardized on normal children, also gives helpful information; a checklist based on the items appears in Appendix I. Charts (on the walls of the classroom which the child can mark when he/she attains the specified skill) are also beneficial.

Instructional Activities

Since each handicapped child differs significantly in his/her development from each other child with a handicap, generalizations can not be made to determine which activities are appropriate for which "kind" of child. After the degree of the child's physical involvement has been determined, instructional activities which enhance that child's strengths should be developed; if the child's only strength is in his hands, strengthen his hands in order that he can pull his body across the floor with his hands.

Instruction for the physically handicapped child may have to begin away from the space to which he has become accustomed (e.g., out of his braces, out of his wheel-chair). Only if the child learns to interact in all of the space in the room will he/she be able to communicate effectively.

Young handicapped children who are nonverbal should be instructed through imitation. If you want the child to lie down, you must lie down as you say the words "lie down."

1. To develop eye contact:
   a. Present a balloon and see if the child can track it.
   b. Roll a ball back and forth.
2. To teach the child to roll his/her body:
   a. Manipulate the child to teach him/her to roll initially. Place the child on a large foam mattress, pick up a corner and let the child roll.

b. Place the child on an inclined mat to have him/her roll down it.

c. Pull gently on the child's arm to have him/her roll over.

d. Permit the child to roll freely down a bank while playing outside.

e. Have the child roll his/her body freely in the room.

3. To teach the child to crawl by establishing opposition of arms and legs:

a. Have the child imitate you, crawling on the floor.

b. Have the child crawl under a table.

c. Have the child crawl through a crawling tunnel.

4. To teach the child to walk heel-ball-toe:

a. Provide the child who is developmentally ready, but afraid to walk, with:
(1) A walker;
(2) A chair with casters;
(3) A baby-buggy to push; and/or,
(4) Adult assistance.

b. Place a masking tape line (square, circle, etc.) on the floor.
(1) Have the child walk around on it.
(2) Have the physically handicapped child use his crutches or move his wheel chair around on the masking tape.

c. Have the child push a large ball to develop large muscle control needed in walking.

d. Have the child balance a bean bag on his/her head. (This provides a gimmick to keep the easily-distracted child on task.)

e. Have children walk in chains (holding each others' waists) and weave around buckets (this encourages cooperation in addition to enhancing walking skill development).

f. Have the child walk on a balance beam.

5. To teach the child to walk up and down steps:

a. Have the child march to gain experience in lifting his/her legs.

b. Provide various gimmicks (sliding board with steps; a set of short steps, etc.) to encourage climbing.

6. To teach the child to run toe-ball-toe with arms in opposition:

   a. Have the child run with adults who hold each of the child's hands.

   b. Have the child run with a child.

   c. Permit the child to run freely.

   d. Have the child run to a "reward" (candy, etc.) and return (a relay race).

   e. Have the child run while flying a kite.

   f. Play games (e.g., tag; follow the leader; "duck, duck, goose") which involve running.

7. To teach the child to jump:

   a. Lift the child from the ground to give him the sensation of jumping.

   b. Have the child jump while being assisted by two adults.

   c. Have the child jump over (or on) a line made with masking tape.

   d. Have the child jump forward, jump backward, jump to the right, jump to the left, jump high, jump far.

   e. Teach the child to jump rope:
      (1) Start with the rope being still and have the child walk over it.
      (2) Turn the rope and see if the child can run through without being hit.
      (3) Have the child try to jump over the rope.

8. To teach the child to develop balance:

   a. Have the child walk balancing a bean bag on his/her head.

   b. Have the child lie on a big cage ball.

   c. Have the child step in and out of a toy box or cardboard box.

   d. Have the child walk on a balance beam.

9. To teach the child to ride a tricycle:

   a. Have the child first use an activity trike (a tricycle which does not have pedals and is moved by foot motions).

b. Have the child ride in a toy which is propelled with the arms.

c. Place the child on a tricycle. Rubber-band his/her feet to the pedals and pull the tricycle (the child's feet will automatically turn as the pedals move).

10. To teach the child to throw a ball:

a. Hold the child firmly with your legs and present the ball in such a manner that the child cannot miss it.

b. Give the child a foam ball initially (the child can make mistakes without hurting anyone).

c. Be sure to start instruction with throwing (it's much easier than catching).

Obstacle Course

The strategic placement of an obstacle course in an area of the room through which the children have to pass regularly (and can get through only by using the course) can effectively enhance gross motor skills.

Use obstacles which require use of each of the muscle groups. Do not put too many obstacles in the course initially.

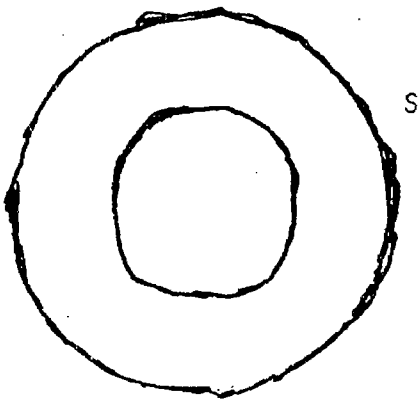
The following items (see Table II) could be incorporated into an obstacle course in some way.

1. Discarded tires (can be stepped or jumped into, or crawled through)
2. Balance beam
3. Crawling tunnel
4. Benches
5. Tumbling mats
6. Jump rope (can be stepped over or walked beside)
7. Ladder placed on risers horizontally
8. Horizontal and vertical mirrors

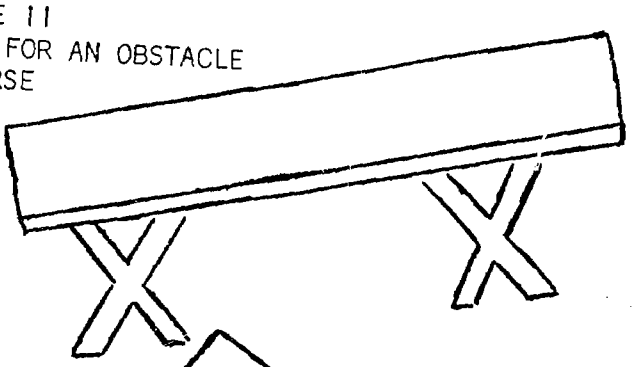
Relays

The type of relays that provide the greatest fun for young handicapped children are relays using basic locomotor skills. The following relays were found to be especially enjoyable.

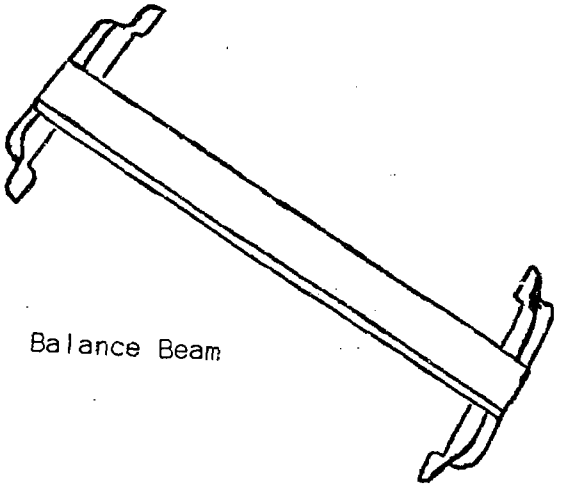
TABLE 11
SUGGESTED ITEMS FOR AN OBSTACLE COURSE



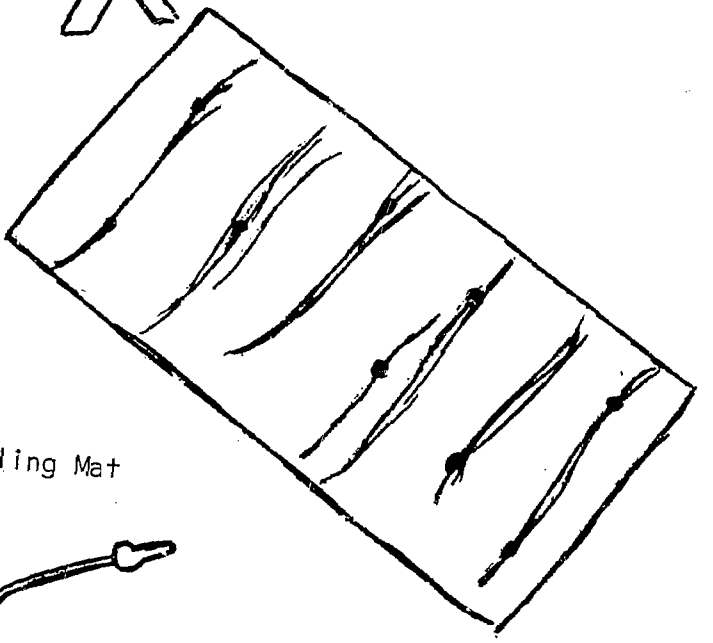
Automobile Tire



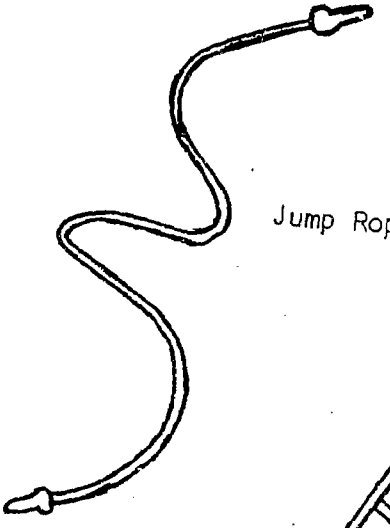
Bench



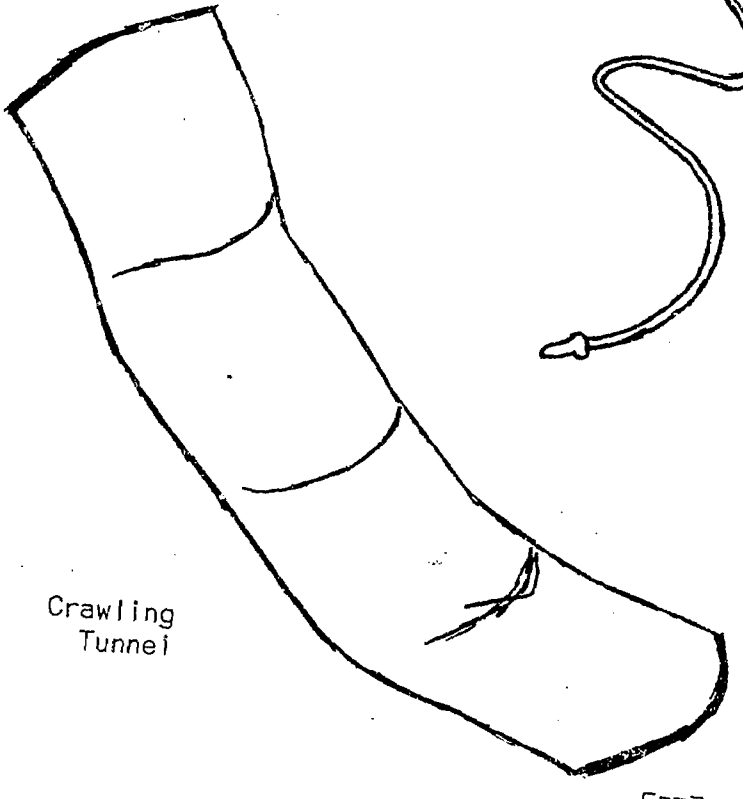
Balance Beam



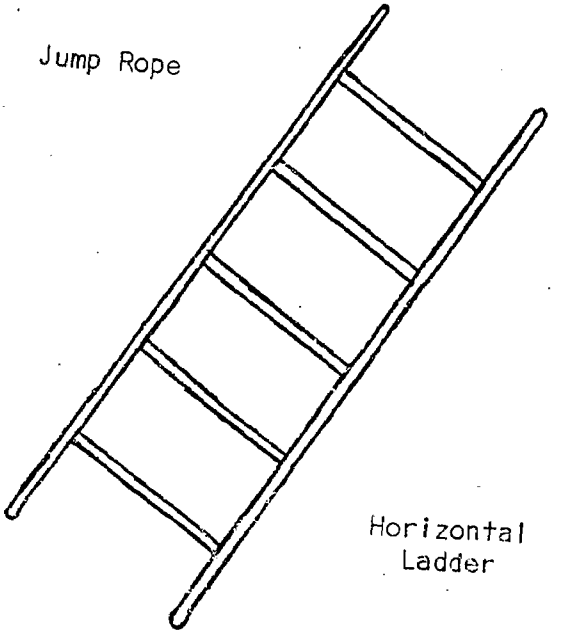
Tumbling Mat



Jump Rope



Crawling Tunnel



Horizontal Ladder

Galloping
Running
Walking
Sliding
Skipping
Hopping--holding one foot at front or back
Jumping--feet close together, taking several jumps with little knee flexion

Equipment

Expensive equipment is not essential to an effective gross motor skill development program. The following items have been found to be particularly helpful.

Mats
Mirrors
Bean bags
Tunnel
Deck tennis rings
Rubber horse shoes
Wands
Scooter boards
Playground balls from 4" to 12"
Jump ropes
Doorway bars
Practice golf, softball, and volleyball size balls

Other materials found to be very effective are listed in the section of this guide entitled "Commercially Produced Instructional Materials."

MANIPULATIVE SKILLS: . EYE-HAND COORDINATION

A coordinated perceptual-motor program can effectively serve to enhance manipulative (fine motor) skills which involve eye-hand coordination. Remember: a child needs to learn to use his whole hand effectively before he can exert small muscle control (i.e., finger dexterity).

Suggested Activities

Start with activities which enhance eye-hand coordination:

1. Have the child catch bubbles made of "bubble stuff."
2. Have the child toss bean bags into (and through) a tire.
3. Have the child hit a sponge ball with a ping-pong paddle.

Eventually introduce painting, cutting, bead stringing, pasting, etc. Make the task as easy as possible initially:

1. Begin painting with finger paint. The use of an implement initially only makes the task frustrating for a young child.
2. Begin cutting with random snipping. Following a line is a very advanced step.
3. Begin bead stringing with beads which have exceptionally large holes (almost ring-like in nature).
4. Begin pasting with materials which do not have a right and a wrong side.

SELF-CARE SKILLS

Eating

One of the main objectives of the motor dimension of the M-A-P Program was to decrease dependence in self-care skills. Sustenance is basic to a child's existence. Once the young child has attained appropriate eating skills, he becomes more socially-acceptable. Parents can take the child to restaurants and show pride in him/her when guests come into the home. Other children and adults also respond more favorably to the child who can feed himself/herself.

Juice-time and lunch-hour provide natural opportunities for instruction in self-feeding skills, improvement in eating habits, and enhancement of table manners. As much time as necessary should be taken during these eating experiences. The child's basic eating skills should be observed initially through the use of the Skill Development Checklist (see Appendix A.) Depending on the child's obtained level of functioning, instruction during mealtimes should be directed toward the attainment of the following skills:

1. Sitting at the table;
2. Drinking from a cup;
3. Eating solid foods;
4. Self-feeding (through finger-feeding);
5. Using a spoon;
6. Using a napkin;
7. Using a fork;
8. Using a knife;
9. Clearing the table; and,
10. Setting the table.

Hierarchical objectives are established for many of these skills in the Skill Development Checklist (Appendix A). Specific techniques for instruction in these skills can be found in the: Initial COMPET Document: Commonwealth Plan for Education and Training of Mentally Retarded Children. Harrisburg: Pennsylvania Departments of Education and Public Welfare, 1972, pp.72-80.

As often as possible, lunch and/or juice should be served in a room which is different from the classroom; location serves as an excellent cue to help the child to establish a clear understanding of the task which is to be completed. Toys, paper, and other distractors should be removed from the lunch area prior to the child's entrance into the room.

Demonstration should accompany verbal directions. For example, while saying "put your napkin on your lap," the teacher should put a napkin on his own lap. The teacher and aides should engage in as much exemplary behavior as possible; by hearing the adults say "please" and "thank you" at the appropriate times, the children will learn more quickly to be polite to one another.

Dessert should not be served with the meal. It should be placed on a separate tray and served to each child as the meal is completed. This will prevent the child from eating dessert first and provide an added incentive for eating. If dessert is served in this way, it also serves as a cue to the child that mealtime is over.

Mealtime can also be used to encourage the use of language and build upon social skills. Talking conversationally should be encouraged. The child should not be rushed to finish the meal.

Toileting

Self-toileting skills (unless impossible because of a physical handicap) serve to enhance the child's social acceptability. If the child seems to be maturationally ready to be toilet-trained, only through initial attempts to assess the child's toileting habits can toilet-training be effective.

To assess the child's toileting habits:

1. Place the child on the toilet or potty at 15 minute intervals and maintain an accurate record of when the child urinates or defecates (in the potty or in his/her training pants).

2. Stay with the child while attempting to establish toileting procedures.

3. Reward lavishly for even the smallest success. Even sitting on the potty deserves a reward.

4. Treat any soiling of pants between scheduled intervals with detachment.

5. Send weekly reports home (e.g., pattern established and/or times of success) so that the child's mother can continue the same procedures in the evenings or on week-ends.

Once a pattern has been established, more specific bathroom skills (e.g., making the need known; turning on the light; pulling down the pants independently; going into the bathroom independently), can be developed.

Dressing

Begin instruction in self-dressing with the removal of outer clothing. It is much easier to take clothes off than to put them on. Similarly, unbuttoning is easier than buttoning, so start here.

Nose/Mouth Wiping (Blowing)

The child becomes much more socially acceptable when his/her nose is no longer dripping with mucus and the front of his/her clothing is not damp from drool. Don't neglect to teach the fundamental self-care skill of wiping. Many nonverbal children learn quickly to respond to the command: "wipe your mouth/nose."

BODY AWARENESS

Awareness of oneself is essential prior to the development of an understanding of the world around one. For the young multiply handicapped child, a positive impression of body image is especially important.

Objectives

Through classroom experiences and activities, the child should be able to develop sequentially the following skills:

1. To touch his/her own gross body parts when requested to do so;
2. To touch the gross body parts of another person when requested to do so;
3. To discriminate between his/her own gross body parts and those of others;
4. To point to his/her own fine body parts when requested to do so;
5. To point to the fine body parts of others when requested to do so;
6. To discriminate among pictures of various body parts;
7. To locate specific body parts in a picture of the whole body;
8. To identify particular body parts by function;
9. To verbalize the names of particular body parts; and,
10. To name the missing body part in an incomplete picture.

Suggested Academic/Perceptual Activities

1. Have the child look at himself in the mirror.
   - -Touch and name a particular part of the child's body.
   - -Take the child's hand and touch the body part on him/her as you verbalize the direction (do several times). (E.g., Say "Roger touch your head"; place Roger's hand on his head).
   - -Have the child mimic your action while you verbalize the direction.
   - -Reward the child with something which is reinforcing to him/her.
   - -(When viewing themselves in the mirror, the children may be surprised to find that the moving parts reflected are theirs. Allow low-level functioning child or child who has not used a mirror before to touch and explore the mirrored reflection, before beginning body image work.)

2. Lay each child down on a large sheet of paper. Trace his/her silhouette and cut it out. Ask the child to identify his/her own gross body parts. As an art activity, the children may color the cut-outs.

3. Work with two children. Touch and name the child's body part. (E.g., "This is Roger's hand"; then, "This is Terry's hand"; "Terry, touch Roger's hand.") Repeat the process several times actually carrying out the requested task.

4. Have the children form a small circle. Hold a puppet and have the puppet ask each child, in turn, to touch the body part (hand) of the child next to him/her. (Be sure to name the child; the children may not understand the concept of "next.")

5. Cut out magazine pictures. Take the child's hand and point to each body part as you verbalize the name of it. Have the child point to the specified part of the body as you verbalize the name of it.

6. Using flannel-board figures, ask the child to name the body parts on the complete figure. Eventually, have the child assemble the flannel-board figure using all pieces.

7. Cut out magazine pictures of various body parts (e.g., heads, legs, arms). Paste each picutre on a piece of cardboard. Ask each child to touch and name the body part. After the children can accurately name the body parts on the cards, paste pictures of two different body parts on a card. Then have the child point to and repeat the name of the body part you name.

8. Introduce the body awareness items from the Peabody Kit, Level "P" (1968). Lessons 10, 12, 16, 20, 21, 26, 38, 59, 65, 97, 98, and 99, when used sequentially, are appropriate for instruction designed to develop body awareness.

9. Cut out a part from a magazine picture. Have the child point to "what's missing."

10. Have the child assemble a flannel figure after one part has been removed. Have the child identify the missing part.

Suggested Motor Activities

In creating body awareness, as much movement as possible should be incorporated into classroom activities. The following experiences are designed to enable the child to learn his body parts, their functions, and the relationship of the parts to the whole:

1. Have the children lie on floor and make sweeping movements with arms and legs outstr ched.

2. Have the children stand and mimic the teacher, moving arms in circles ("Windmills").

3. Have the children stand feet spread slightly apart, arms stretched over their heads. Teacher leads: jump up--bring feet together, clap hands over head (simultaneously) ("Jumping Jacks").

4. Sing songs and go through motions (e.g., "Head, shoulders, knees, and toes").

5. Make up games which can be played in front of a full length mirror.

6. Play the following games suggested in Play Activities for the Retarded Child (Carlson & Ginglend, 1961).

   Do What I Do, p.52
   Freddie's Friend, p.54
   If You're Happy, p.167
   Let Your Hands Go Clap, p.169
   Marching, p.176
   Rhythm Instruments, p.177

7. Have the child roll and push a big cage ball.

8. Play "Simon Says," having the child touch various body parts.

CHAPTER 5

ACADEMIC SKILL DEVELOPMENT

SKILLS DEVELOPED IN THE ACADEMIC DIMENSION OF THE M-A-P PROGRAM FOR THE EARLY CHILDHOOD EDUCATION OF THE MULTIPLY HANDICAPPED

General Readiness Skills

1. Participating in the Group
2. Listening
3. Following Directions
4. Handling Books
5. Using Books
6. Obeying Rules
7. Solving Problems

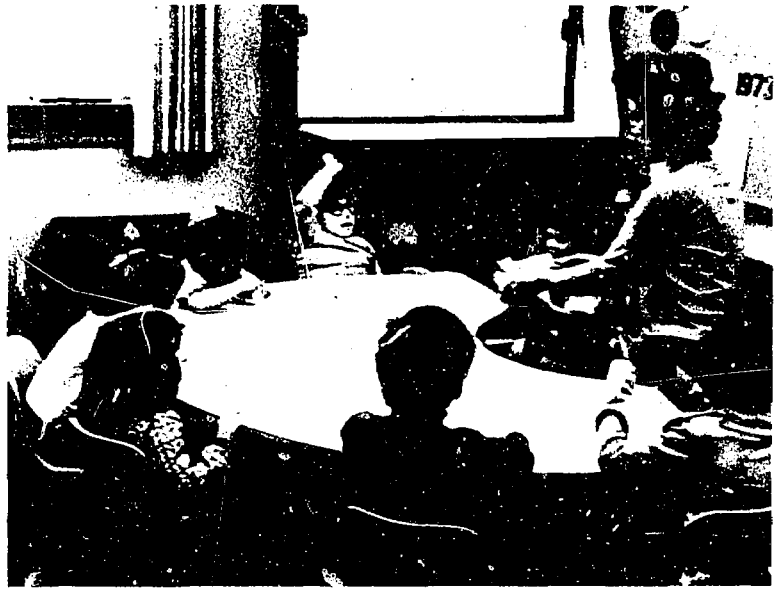
Communication Skills

1. Demonstrating Receptive Language Skills
2. Demonstrating Expressive Language Skills
3. Making Conversation
4. Demonstrating Speech
5. Using Expressions (e.g., "hi")

Basic Skills

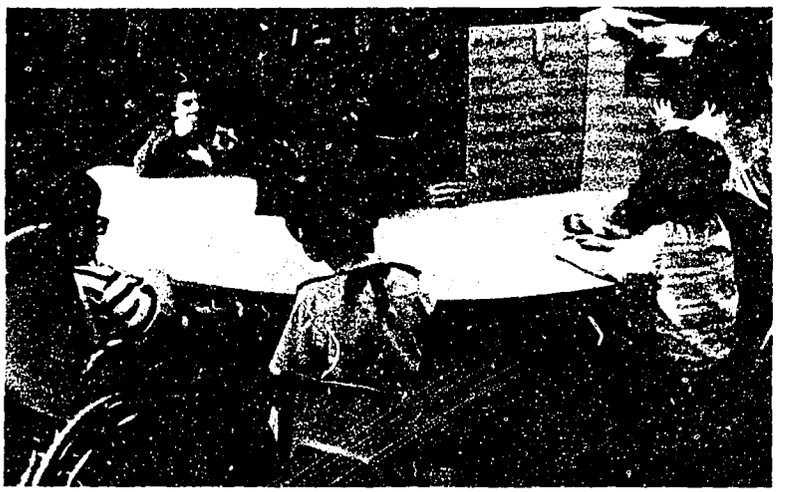
1. Demonstrating Picture Recognition Skills
2. Demonstrating Picture Relationships
3. Demonstrating Letter Readiness
   a. Naming
   b. Writing
   c. Matching
4. Demonstrating Number Readiness
   a. Counting
   b. Writing
   c. Matching
5. Demonstrating Memory Skills

GENERAL READINESS SKILLS



General readiness skills of participating in a group, listening, following directions, etc., can be developed if a specific routine is followed regularly throughout each school day.

COMMUNICATION SKILLS*



*This segment of the Curriculum Guide was developed by ARIN Speech Therapists, Mrs. Kristine Elliott and Ms. Patricia Getty.

Language development is an essential part of an educational program for young multiply handicapped children. Children who are nonverbal, delayed in speech and language, and/or possess articulation problems, can all profit from language stimulation activities. Although the classroom teacher generally stresses speech and language development throughout the school day, the speech therapist can supplement this instruction with specialized techniques.

A speech therapist can participate in a school program by:

1. Providing individual therapy to those children who have specialized speech problems;

2. Conducting small group speech and language stimulation sessions for all young children who are enrolled in a program for the multiply handicapped; and,

3. Consulting with classroom teachers and aides on appropriate techniques to stimulate language development and expressive verbalization in young multiply handicapped children.

Individual Speech Therapy for Young Multiply Handicapped Children

1. DETERMINE CHILD'S LEVEL OF FUNCTIONING.

   The most important step in developing a program of individual therapy is to determine the level at which the child is functioning in his speech and language abilities. If the child exhibits some speech and language abilities, this may be accomplished by administering a language test and/or an articulation test. If the child is nonverbal, much emphasis must be placed upon any observable behavior which the child exhibits. Cues can be taken from his response to auditory and visual stimuli which are presented to him.

2. DEVELOP A REWARD SYSTEM.

   A reinforcement (a reward which is meaningful to the child) must be used consistently when responses are elicited from the child. Reinforcement may take the form of candy; body contact, such as hugging and touching; and/or verbal praise.

3. ESTABLISH EYE CONTACT

In the case of the nonverbal child, eye contact has to be developed first. In most cases, the face of the child should be held in the therapist's hands, gently forcing the child to position his head to face the therapist.

4. ENGAGE THE CHILD IN IMITATIVE BEHAVIOR.

Various types of imitative behavior may be developed in the individual therapy, according to the needs of the child. They may include: clapping patterns, touching body parts, matching colors, building patterns with blocks.

5. DEVELOP SELF-AWARENESS.

A mirror may be used to visually stimulate the child to attend to his eyes, mouth, head, hair, and ears, as well as to those of the therapist.

6. TEACH THE CHILD TO FOLLOW SIMPLE COMMANDS.

Nonverbal children may be taught to follow simple commands such as: sit down, come here, stand up, look at me. Models should be provided and the child should be physically involved in performing the task. Reinforcement must be given for each correct or approximated response.

7. STIMULATE LANGUAGE DEVELOPMENT.

The naming of body parts, clothing, and pictures from books, stimulate some children to imitate the names. Reinforcement should again be used for the correct or approximated response.

8. ENHANCE LISTENING SKILLS.

If the child is verbal, listening exercises may be developed.

Articulation Therapy: Handicapped vs. Normal Child

The handicapped child learns correct speech sounds in words through intensive stimulation and imitation. The therapist should work to instill a habit--the habit of producing a specific sound in a specific word. For example, a child concentrating on the "b" sound may learn ten words beginning with "b."

Through daily repetition he learns to call a certain round object a "ball," not an "all." While he may still be calling a "boat" an "oat," his communication has improved.

This idea of dealing with whole words in articulation therapy differs from the handling of a "normal" child, who learns through improved auditory discrimination to identify words with the target sound and to produce it appropriately. The "normal" child learns a sound first and then the words, maintaining correct production through self-monitoring. The handicapped preschool child usually is not capable of such monitoring and needs to learn the words he uses in his environment through repetition and imitation.

Multi-Sound Articulation Therapy

This approach, which relies on the child's assimilation of sounds into his speech through stimulation and imitation, may be used with young children with many articulation problems.

Have the child:

1. Imitate isolated consonants.

   Consonant cards are shown; the therapist says the sound and the child repeats it. At first, an approximation is acceptable. Later, more accuracy is expected. The child should then say the sound three times alone.

2. Imitate short words.

   The same procedure is used as above. This is done in conjunction with the consonant cards, stressing the same sounds.

3. Practice a specific, relevant phrase or name.

   This should be done each session, stressing the articulation of all sounds. For example, use the teacher's name, the child's own name or address, to permit articulation practice.

Articulation Therapy: Single Target Sounds

Cut out pictures to represent the words you have selected to teach (words with the child's target sounds). Say the words and let the child paste the pictures on cards to make his own picture cards. These picture cards should be kept in a special place in the therapy room. The first thing the child does upon entering each session is to get his cards and name them correctly. This should be done during every subsequent session. As new words are added, new cards are developed. Children have been found to respond well to the continuity of this activity; they also take pride in the fact that they have their own, self-made cards. Corresponding pictures may be pasted in their notebooks to practice in class and at home.

Group Speech Therapy for Young Handicapped Children

Small group speech activities conducted by the speech therapist may be used to enhance the following skills:

1. AUDITORY DISCRIMINATION

   Lessons may be developed which involve auditory discrimination of gross sounds (using noise makers, etc.), sounds in isolation, initial sounds in words, and sounds in short phrases and sentences.

2. SPECIFIC SOUND DEVELOPMENT

   The sounds "s, z, r, sh, ch, and l" often can be taught effectively. After the sounds are taught in this sequence, auditory discrimination tasks should be developed to reinforce learning.

3. MOTOR ACTIVITIES

   Motor activities, although not being taught as such, may be incorporated into lessons, so as to develop concepts of handedness, right and left, and up and down.

4. AUDITORY MEMORY SPAN

Auditory memory span should also be taught sequentially: first, using gross noises (noise makers), then sounds in isolation, followed by sounds in words, and, subsequently three-word progressions. Storytelling and the retelling of the story or the naming of objects in pictures may also be used to develop auditory memory span. (Work in this area should generally be directed to the children who are already verbal.)

5. AUDITORY AND VISUAL ASSOCIATIONS

Auditory and visual associations may be developed by presenting a series of lessons involving color and shape. The children could match colors with pictures of colors, objects, and shapes. Eventually, some children should be able to match the color to objects in the room. A picture of the color may be given to a child with the stimulus word (in this case, the name of the color); the child could then be instructed to find something in the room which had the same color.

Specialized Techniques for Group Speech Development in Young Handicapped Children

1. PLANNING

In the planning and development of a speech activity, all perceptual modes must be considered. Visual, auditory, and motor activities should be employed simultaneously in the activity. Words (or speech sounds) should be presented with objects or pictures which depict the word or the sound. Sounds may often be paired with a gross motor act (body movements) in the form of a game. Speech materials must be prepared in advance so the lesson can move quickly and easily from one activity to another.

2. ARRANGING THE ROOM

Room arrangement is an important factor. Although group lessons may be taught in the classroom, other materials in the room should be put away before the children are gathered closely around a table for speech. The therapist must control the materials being used; often, the pictures or objects must be held by the therapist and given to the children one at a time. The removal of all distractions, even the therapist's jewelry, is essential for success in working with emotionally-disturbed, retarded, or learning disabled children.

3. MAINTAINING CLOSE PHYSICAL CONTACT WITH THE CHILDREN

The children should be dealt with through very close contact. In developing attention span and eye contact, the children should be

touched, held and talked to on the floor or in small chairs, so that they are approached on their own level. Body contact is necessary for developing attending behavior and awareness of the environment.

4. PACING

Because of the short attention span of the children involved, formalized time designated for speech has to be broken down into small blocks of time involving a variety of activities. A half hour speech lesson might include: auditory discrimination; some language development with a story, and the retelling of the story by the children who are capable of participating; a motor activity which would reinforce a particular sound (e.g., through pictures and the use of a bean bag).

5. SELECTING APPROPRIATE INSTRUCTIONAL MATERIALS

The materials which are used in the speech lesson must be carefully selected on the basis of what is relevant to the child. Only objects, pictures, and other materials which the child might recognize from items in his environment should be used. The object must also be managed easily by the child, safe for the child, simple in nature, and not so distracting that the child will be unable to attend to the desired task.

6. USING A SPEECH MIRROR

A speech mirror can be one of the most useful aids in creating self-awareness, in enhancing imitation skills, and in developing rapport between child and therapist. It has been found to be an invaluable aid in creating awareness of the articulators and in aiding in placement of the articulators for the children who are ready for articulation therapy.

7. USING A TAPE RECORDER

A tape recorder may be used to tape and play back the children's voices. For children who have not developed language, it may be used to amplify any vocal sounds emitted. The microphone may also serve to stimulate speech sound production.

8. MAKING SUCCESS POSSIBLE

There is much less frustration for the child if he is given a task in which he is able to succeed. When teaching a speech lesson to a group, it is necessary to adapt the materials to the abilities of each child. Thus, each child, although being presented with the same materials, will be asked to perform a task which is within his capability. It is important to determine an attainable goal for each child in the group.

9. REINFORCING APPROPRIATE RESPONSES

Reinforcement must be a vital part of the speech program. The needs of each child should dictate the type of reinforcement which is used. In a few instances, candy may be used as an initial reinforcer. Later, most of the reinforcement may come in some form of body contact, such as hugging or touching the face or hands and verbal reinforcements such as, "Good boy," or "That's a good try." Animated facial expressions are also necessary reinforcers; smiling at the children and exhibiting a pleasantly surprised expression when a performance is good, are beneficial.

Food (e.g., M & M's or cereal) can serve as a particularly effective reinforcer for the severely retarded, emotionally disturbed, or nonverbal child with no clear means of communication.

The more able child may respond well to the use of tokens or chips dropped in a can when a correct response is made. A specific number of chips should be established as criterion at the beginning of each session. If the goal (criterion number of chips) is reached, the child receives a star by his name for the day. (The children's names may appear on a seasonal design on the bulletin board.) At the end of each month, the children take their stars home.

10. INCORPORATING REPETITION IN INSTRUCTION

Materials and lessons should be presented with a great degree of repetition. At least one mode of a perceptual activity which is presented should be re-presented in the following lesson. Pictures which are used in one lesson may be used in several subsequent lessons to reinforce the sound being taught. Bean bags may also be used in many lessons because they are enjoyable for most handicapped children.

Speech Therapy for the Nonverbal Child

Any sound which the child elicits, regardless of the type of sound (e.g., "mmm," "bb," "nnn"), should be reinforced, imitated by the therapist, and consistently paired with something which the child will recognize. For example, each time a child says "bb," a ball should be presented. Eventually, and it might take a considerable amount of time, the object which was paired with the sound, will act as the stimulus for the sound.

Materials for Language Development

Although many commercially-produced materials are frequently available to speech therapists, these materials are often highly expensive, over-stimulating, and/or too sophisticated for young, multiply handicapped children. Each child's needs are so specific that teacher-made materials are often best. The following "home-made" items were found to be helpful in instruction:

1. Bean bags;
2. "Feely-meely" box (a hat box with openings in either the front or on the sides);
3. Building blocks;
4. Plastic oval "eggs" (discarded hoisery containers) which may be filled with different materials to enhance auditory discrimination skills;
5. Concrete objects which illustrate particular sounds;
6. Plastic fruit; and,
7. Pictures which illustrate particular sounds (from magazines, catalogs, etc.).

Consultation Between the Classroom Teacher and Speech Therapist

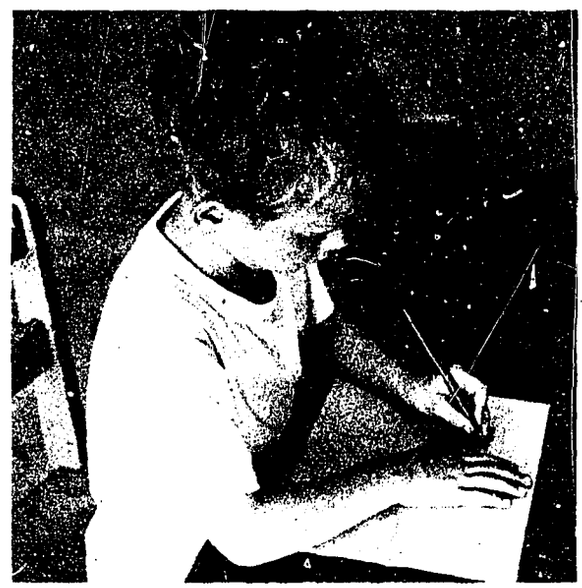
The speech lesson(s) should not be an isolated part of the school program. The classroom teacher is responsible for reinforcing the skills which the therapist is attempting to develop. Only through this kind of on-going cooperation, can appropriate instruction for handicapped children be effected. The therapist should cooperate with the teacher in utilizing the theme of a unit (e.g., the family) which is being presented.

BASIC SKILLS

Imitates Writing of Symbol

Traces Symbol

Copies Symbol



Writes Letter on Request

Activities for Teaching Writing Skills to Multiply Handicapped Children

Steps in instruction:

1. Imitating

   Providing the child with motor, visual, and verbal cues (e.g., holding the child's hand, you and he trace a particular design--circle. You say, "We take our hand around and draw a circle").

2. Tracing

   Providing the child with visual, verbal, and outline cues (e.g., giving the child a picture of a circle (O) and instructing him to trace the line).

3. Copying

   Providing the child with visual and verbal cues (e.g., "Here is a circle - you make a circle.").

4. Writing

   Providing the child with only verbal cues (e.g., draw a circle).

Order of implements:

1. Sandwriting

   The child uses his fingers to make evident impressions in the sand.

2. Finger Painting

   The child places paint on paper through the use of his fingers.

3. Painting without a Brush

   The child who needs help with control, should be given one of the following implements instead of a brush:

   a. A sponge attached to a thick cylindrical cork which the child can grasp.

   b. A brush inserted through an empty Clorox bottle; place the child's hand under the handle.

   c. A roll-on deodorant bottle with paint

   d. A shoe polish bottle with paint in i

4. Painting with a Brush

   a. The child paints with water. The child experiments with a brush without adding another dimension (e.g., paint).

   b. The child paints with tempera paint. The child may use a brush or another device to spread paint (which flows easily) on paper.

5. Using Chalk or Crayons

   The child controls a line with a large thick implement.

6. Pencil

   The child who has had experience with the above implements is only now ready for instruction with a primary pencil.

Writing experiences:

1. Scribbling

2. Drawing a Line

3. Tracing a Horizontal Path

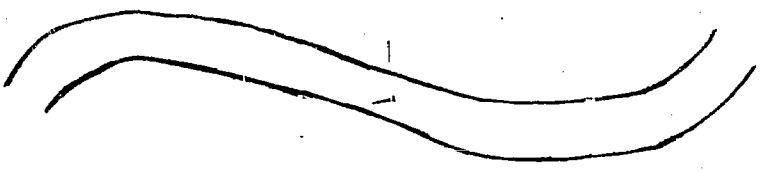
   a. Have the child make a line between two pieces of cardboard.

   b. Have the child make a line between two strips of rope.

   c. Have the child make a line between two large lines, e.g.,

   d. Have the child make a line between two narrow lines, e.g.,

   e. Have the child make a line between two curved lines, e.g.,



4. Tracing a Vertical Path (same as Tracing a Horizontal Path)

5. Drawing a Circle

6. Drawing a Triangle

7. Drawing a Square

8. Drawing a Face

9. Drawing a Man

10. Drawing a House

11. Drawing a Diamond

12. Making Numbers

13. Making Capital Letters

14. Making Lower Case Letters

Activities for Teaching Number Concepts

1. Place the numerals on the floor with masking tape. Have the children walk on them, crawl on them, etc.

2. Present concrete objects as you present the number (e.g., one toy car with the number "1").

3. Present the number itself in many different sizes or materials (e.g., making numbers out of corrugated cardboard, wire, etc.)

4. Hang a specific number of objects on a mobile, as the number you are demonstrating (e.g., on a coat hanger, hang two balloons to demonstrate the number "2").

5. Allow the child to use his fingers to gesture the number (e.g., the child raises one finger to the command "Show me one.").

6. Give the child the specific number of bean bags which represent the numeral learned (e.g., give the child 5 bean bags; ask him to "Throw five bean bags to me.").

7. Make puzzles out of the number itself (e.g., ) and have the child put it together.

8. Allow the child to "fish" for and match numbers. (Put paper clips on the back of paper fish which have numbers on their fronts; also

put numbers on covered juice cans; give the child a stick which has a string and a magnet on the end. The child "fishes" for a "number-fish" in a big bowl, then places the "fish" in the appropriately-numbered juice can.)

9. Have the child match sets of materials (e.g., six blocks and six clothespins).

10. Have the child discriminate the numeral (e.g., 1) from other numerals through the use of discrimination cards (with numbers, a specific number of beans, etc., on them).

11. Have the child write the numeral "one" by finger-painting; with water on the blackboard; with a magic marker made out of an old shoe-polish bottle; with a crayon; with a primary pencil.

12. Give the child worksheets which involve drawing lines between numerals.

13. Have the child draw lines between a numeral and the picture depicting it.

14. Have the child paste collections (e.g., circles, pictures of hats, dogs, etc.) of a specific numeral and draw the numeral under each picture.

15. Have the child draw a picture representing the numeral (e.g., "Draw one circle.").

Activities for Developing Letter Readiness

Research has indicated that prior to instruction in the alphabet the child must possess the ability: (a) to recognize and identify familiar pictures, (b) to point out similarities and differences between pictures, (c) to match or relate pictures of familiar scenes and objects which occur together, (d) to follow a sequence of events shown in picture form, and (e) to perceive and draw omitted parts of familiar pictures. If the child has developed these basic discrimination skills with pictures, attempts may then be made to teach the child to discriminate between and among letters.

Although many commercially-produced materials are designed to develop basic readiness skills, teacher-made items are often cheaper and more easily

adapted to meet the needs of each individual child. The following activities (expanded from Sanford, 1973) which are directed toward the enhancement of motor, academic, and perceptual skills are suggested for use in teaching children basic letter skills. It must be remembered that only one letter should be introduced at any one time.

1. Have the child tactilely manipulate wooden, styrofoam, or cardboard letters. The child may also fit the concrete letter into a puzzle form.

2. Have the child be tactilely stimulated by sandpaper letters mounted on construction paper.

3. Have the child match the wooden letter to the sandpaper letter.

4. Have the child visually discriminate the letter (e.g., "D") from other letters, each written on 5" X 8" stimulus cards made from index cards.

5. Have the child assemble a puzzle of the letter. Sequence the difficulty of puzzles. Border cues are helpful initially.

6. Remove the letter from the collection of other letters (e.g., "D"). Write each letter on a 2" square piece of construction paper. Have the child give the teacher all the "D's." Begin with one "D." (This is a good readiness experience for figure-ground activities.)

7. Have the child mark a cue shape on a sheet with various letters. (An extensive readiness program for this activity may be necessary.) E.g.:

	D	
D	A	S
T	U	D

8. Have the child draw the letter:

   a. In the sand;

   b. With finger paint;

   c. With water on the blackboard;

d. With chalk on the blackboard; and,

e. With a magic marker.

9. H he child verbalize the name of the letter in response to "Wha letter is this?"

10. Cut the raised print of the letter in a potato half. Have the child dip in paint or colored ink and print.

11. Have the child cut out and paste a collection of letters from magazines.

12. Have the child imprint the letter by placing a sheet of paper over a raised paper letter and coloring over it.

13. Cut advertisements from magazines and have the child find a particular letter.

14. Have the child string macaroni and form the letter which may be glued to cardboard.

15. Outline the letter with glue. Have the child sprinkle it with glitter.

16. Put a masking tape letter on the table. Have the child put playdough on top of this to make a playdough letter.

17. Put masking tape on the floor in the shape of the letter. Have the child crawl, walk, etc., around the letter.

Activities for Teaching a Geometric Shape

1. Present large cardboard shapes for tactile stimulation.

2. Have the child match a cardboard shape to a picture of identical size.

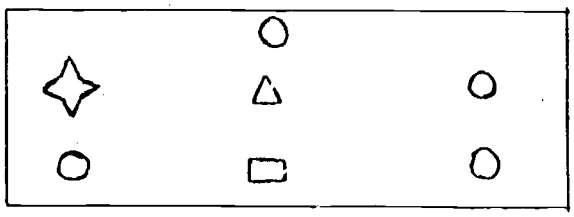
3. Have the child fit different shapes into a puzzle (start with one-piece puzzles).

4. Provide several different cardboard shapes of the same color, size, and texture; the only variable is shape. Have the child discriminate among them (e.g., "Give me the round one.").

5. Make a puzzle of the shape (e.g., ⓘ). Have the child put it together.

6. Have the child remove all of one shape from a collection of various cardboard shapes.

7. Have the child mark a cue shape on a sheet with varying shapes.



8. Have the child draw the shape with water paint, chalk, a large magic marker, or a pencil.

9. Have the child complete a series of shapes which you have begun (closure).

10. Have the child verbalize the name of the shape.

11. Have the child draw a house using geometric shapes.

12. Have the child find specific shapes in the classroom.

CHAPTER 6

PERCEPTUAL SKILL DEVELOPMENT

SKILLS DEVELOPED IN THE PERCEPTUAL DIMENSION OF THE M-A-P PROGRAM FOR THE EARLY CHILDHOOD EDUCATION OF THE MULTIPLY HANDICAPPED

Visual-Perceptual Skills

1. Demonstrating Visual Awareness
2. Demonstrating Visual Localization and Following
3. Demonstrating Visual Discrimination
   a. Discriminating Among Shapes
   b. Discriminating Among Colors
   c. Discriminating Among Quantities
   d. Discriminating Among Sizes
4. Recognizing Figure-Ground Relationships
5. Recognizing Position in Space
6. Recognizing Spatial Relationships
7. Engaging in Visual Analysis
8. Engaging in Visual Synthesis

Auditory-Perceptual Skills

1. Associating Sounds with Experiences
2. Demonstrating Auditory Awareness
3. Demonstrating Auditory Localization
4. Attending to a Task
5. Demonstrating Auditory Discrimination
6. Recognizing Figure-Ground Relationships
7. Engaging in Auditory Analysis
8. Engaging in Auditory Synthesis
9. Engaging in Auditory Closure
10. Comprehending
11. Demonstrating Auditory Memory Skills
12. Demonstrating Retrieval Skills
13. Sequencing Sounds in Words

Additional Perceptual Skills

1. Demonstrating Gustatory Discrimination
2. Demonstrating Olfactory Discrimination
3. Demonstrating Tactile Discrimination

VISUAL PERCEPTION

Visual perception, the way in which one sees the world, involves the sequential development of a series of perceptual skills. Many children learn these skills through experience without formalized instruction. The young handicapped child, however, often requires specific training in order to develop these fundamental skills.

The visual perceptual skills and procedures for instruction listed sequentially below (Johnson & Myklebust, 1967; Sucrtose, Pratt, & Kerns, 1973; Valett, 1967) can be enhanced through specific learning experiences. It is initially necessary for the teacher to determine the level on which the child is functioning and to then begin instruction at the child's level of development.

VISUAL-PERCEPTUAL SKILLS

VISUAL AWARENESS

Definition: The ability to see things around oneself in a meaningful way.

Manifestations of Difficulty in Young Children

1. The child may have difficulty playing games which involve the use of his eyes (e.g., "Hide and Seek").
2. The child is not aware that certain gestures imply certain things.
3. The child cannot identify a picture of a cat, dog, or object.
4. The child does not notice when his writing goes off the lines.
5. The child is not aware that a number or letter has been written too often (e.g., "Billy" would appear to be the same as "billly").

Procedures for Instruction for the Verbal Child

1. Show the child objects one at a time and ask him to name each one.
2. Have the child tell you everything he sees in the room.
3. Have the child describe a specific object in detail.
4. Have the child point out simple mistakes in simple pictures.

Procedures for Instruction for the Nonverbal Child

1. Show the child a single toy (or any other concrete object) and accompany the presentation with a singular descriptive word. Allow the child to explore the toy or object.
2. Take the child on a tour of the room. Name objects in the room, articles of clothing, parts of the body, etc., as the child touches and explores them.

VISUAL LOCALIZATION AND FOLLOWING

Definition: The ability to locate and pinpoint a stationary object and the ability to locate and visually follow a moving object.

Manifestations of Difficulty in Young Children

1. The child is unable to follow one's eyes while conversing or in contact with another individual.
2. The child meets with no success in games which require visual following (e.g., ball rolling, baseball, etc.)
3. The child cannot locate a specific toy in the classroom.
4. The child is unable to locate a specific letter in a word or a specific picture on a page.

Procedures for Instruction

1. Have the child visually locate an object present in the room (e.g., "find the tricycle"; it might be necessary to teach the child the concepts of "find" and "tricycle" first).

2. Have the child shut his eyes, open them, and locate a given object in the room.

3. Half hide an object and tell the child to locate it.

4. Mix an object in with several other objects and have the child locate the specified object. (Start with only <u>two</u> objects, gradually add more).

5. Have the child visually follow an object moving in one direction (e.g., a piece of candy).

6. Have the child visually follow an object as it moves in two directions (i.e., back and forth).

7. Have the child follow an object as it moves in a circular pattern.

8. Have the child follow a flashlight beam as it moves randomly around the room.

VISUAL DISCRIMINATION

<u>Definition:</u> The ability to see or perceive differences in people, objects, words, etc., in one's environment.

<u>Manifestations of Difficulty in Young Children</u>

1. The child has difficulty associating faces with names or telling the differences between two people with similar characteristics.

2. The child is unable to tell or recognize whether two simple pictures are the same or different (e.g., ○ △).

3. The child confuses "b" and "d", "m" and "n", "u" and "n" in naming letters.

4. The child writes "b" for "d", "9" for "6."

<u>Procedures for Instruction</u>

1. Have the child initially engage in gross discrimination tasks. Show the child a single object, e.g., a piece of fruit; then show two other items--an identical piece of fruit and a grossly different in all dimensions "junk" item (e.g., a telephone). Ask the child to choose which of these two objects is "just like it." The degree of discrimination could later be increased <u>very gradually</u> to the point where fine evaluations of shape, size, color, etc., can be obtained.

2. Present various shapes at one time and ask the child to sort them according to shapes or sizes, etc.

3. Explore texture differences with the child by having him/her match objects which feel the same (e.g., rough, soft, etc.)

4. Ask the child to make intersensory discriminatory matches by pairing something he feels with something he sees. [E.g., show the child a piece of fruit; then have him/her reach into a bag and select from several options the one which is like (or the same as) the one he sees.] CAUTION: BE SURE TO KEEP YOUR VOCABULARY CONSISTENT.

5. Ask the child to give you the "smallest" or the "biggest" of a group of 2 objects. For the more able child, gradually increase the number of objects to be arranged according to size.

FIGURE-GROUND

Definition: The ability to select the relevant object from the background.

Manifestations of Difficulty in Young Children

1. The child is unable to focus on the specific item upon which the teacher wishes him to attend.

2. The child is unable to focus on the specific part of the picture to which his teacher wants him to attend.

3. The child is unable to sort out the important parts of problems from the unimportant.

4. The child may not be able to color in the space provided, without getting confused.

Procedures for Instruction

1. Isolate the object to which you wish the child to attend from all other intervening stimuli.

2. Present simple pictures to the child which have a completely white background to eliminate distractors.

3. Ask the child to select a particular object from a series of grossly different items. Use both a verbal direction and a visual picture of the object to be selected.

4. Add more concrete objects to the group in order to enlarge the ground gradually. Ask for a particular object, again using both a verbal direction and a visual picture of the object to be selected.

5. Present (gradually) a group of objects which are similar (e.g., a pen, a pencil, a crayon, a piece of chalk) which may eventually have similar characteristics such as size, color, and texture. Ask for a particular object, again using both verbal directions and visual pictures of the object to be selected.

6. Have the child play pick-up sticks. This game requires the child to evaluate a group of visually similar shapes to select one from the total which is separate and not affected by any others.

7. Later, substitute forms or shapes drawn on paper for concrete materials. Present a single geometric shape on a piece of paper and ask the child to mark those which correspond to the one you show (or tell him/her to mark).

8. Paste isolated letters on a piece of paper and have the child locate the "A's." Next, ask the child to look at a word and show you all the "A's." Eventually, have the child circle all the "A's" in a sentence, etc.

9. Increase the ground area gradually to include all of the child's environment. Ask the child to find and point to a particular object in the room, or to a particular student.

POSITION IN SPACE

Definition: The child's ability to perceive his own position in his environment in relation to the position of objects, persons, walls, etc.

Manifestations of Difficulty in Young Children

1. The child bumps into people and objects around him, constantly.

2. The child has to "touch" (put his hand on things) before he/she can move. (E.g., the child has to put his hand on the chair before he sits in it; he has to touch the door frame before he moves through it.)

3. The child encounters great difficulty playing musical chairs.

4. The child does not understand concepts of "up-down", "over-under."

Procedures for Instruction

1. Teach the child the parts of his body. Have the child touch his body parts.

2. Ask the child to touch the basic parts of your body.

3. Have the child identify basic body parts in pictures.

4. Have the child assemble a puzzle placing the parts of the body in their appropriate places.

5. Teach the child "right" and "left." Have the child shake right hands.

6. Have the child step over, duck under, crawl through various mazes. (Construct an obstacle course using chairs, tables, etc., for the child to move around, over, under.)

7. Create a symbol code for the more able child to read which describes a task for him to perform. Use directional arrows, footprints, etc., and gradually use such words as right, left, up, down.

8. Have the child play hop-scotch.

SPATIAL RELATIONS

Definition: The ability of a child to perceive the relationship of objects in his environment in relation to each other and to himself. In order for a child to possess spatial relations, he must have developed an adequate body image, realization of his position in space, and an understanding of figure-ground relationships.

Manifestations of Difficulty in Young Children

1. The child cannot make same-sized letters.

2. The child may start to write a word or his name on a piece of paper and not have enough room left to finish it.

3. The child may be unable to deal effectively in determining the size of groups (e.g., which has more; which has less).

Procedures for Instruction

1. Have the child walk to various points in the room, counting the steps it takes to get there.

2. Ask the child to make comparative judgments of size of objects in the room and then physically manipulate them for comparison.

3. Place wastebaskets in various locations around the room and ask the child to toss bean bags into them so that he can experience the tactual-kinesthetic differences in distance.

VISUAL ANALYSIS

Definition: The child's ability to "break down" something visually.

Manifestations of Difficulty in Young Children

1. The child will have difficulty perceiving the feelings of others by their facial expressions.

2. The child will see words, numbers, or pictures as a total unit and will not notice letter or number combinations within the words or numbers.

Procedures for Instruction

1. Have the child find a picture (or object) like the one he holds in his hand from several which are presented to him.

2. Give the child a drawing with hidden pictures in it and have the child circle or mark each hidden picture as he finds it.

3. Have the child find as many circles, squares, triangles, etc. on a paper which contains these objects run together.

VISUAL SYNTHESIS

Definition: The ability to arrange parts visually into a whole.

Manifestations of Difficulty in Young Children

1. The child may be unable to identify an object (visually), from a card with the disassembled object pictured on it.

2. The child may be unable to assemble even a simple two-piece puzzle properly (e.g., does not see 2 half circles = one whole circle).

Procedures for Instruction

1. Cut up pictures of the child or people familiar to him and have him put them together.
2. Cut up a picture of a horse -- the head, body, and tail, and let the child put it together.
3. Have the child complete follow-the-dot exercises.
4. Have the child complete pegboard or parquetry block designs.
5. Play with the child on a "Lite-Bright" (a peg toy available at a local 5 & 10).

Subsequent visual perceptual skills of VISUAL CLOSURE (the ability to see an object as a whole), VISUAL MEMORY (the ability to accurately recall prior visual experiences), SCANNING (the ability to look for and find needed information), SPEED OF LOOKING (how fast a person is able to locate and recognize information), OBJECT RECOGNITION (the ability to visually classify and categorize objects), STRUCTURING MATERIALS (the ability to perceive things in their natural developmental sequence) are further developed in Johnson & Myklebust (1967) and Valett (1967). These skills are felt to be too sophisticated for many young handicapped children.

TESTS WHICH GIVE MAXIMUM INFORMATION FROM MINIMUM WORK FOR THE VISUAL HIERARCHY

The following tests include subtests which assess breakdowns manifested in the visual sequence:

Illinois Test of Psycholinguistic Abilities (ITPA).

2. Frostig—Developmental Test of Visual Perception.

3. Wechsler Intelligence Scale for Children (WISC).
(This test may be administered only by a certified psychologist.)

4. Detroit Test of Learning Aptitude.

Two supplemental tests which may be used are:

1. Stanford Binet Intelligence Scale.
(This test may be administered only by a certified psychologist.)

2. Screening Test for the Assignment of Remedial Treatments (S.T.A.R.T.).

AUDITORY PERCEPTION

Auditory perception, the manner in which one responds to the sounds in the world around him, can also affect the handicapped child's total functioning. The auditory-perceptual skills and procedures for instruction (appropriate for learning disabled and mildly retarded children, and others who possess some expressive language) listed and described below (Johnson & Myklebust, 1967; Kephart, 1968; Krath, 1971; Lerner, 1971; Myers & Hammill, 1969; Valett, 1967; Zigmond & Cicci, 1968) can be enhanced through specific learning experiences. It is necessary for the teacher to determine the level on which the child is functioning and to then begin instruction at the child's level of development, moving from concrete to abstract tasks.

AUDITORY-PERCEPTUAL SKILLS

MEANINGFUL ENVIRONMENT

Definition: The child associates sounds with experience.

Manifestations of Difficulty in Young Children

1. The child over-reacts to extraneous noise, because he doesn't know which sounds to ignore.

2. The child is visually and tactually oriented.

3. The child has difficulty using established auditory cues to change behavior patterns (e.g., music, a bell, etc., mean nothing).

4. The child selects colorful and mobile toys rather than those which produce sound.

Procedures for Instruction

1. Take the child on a listening walk through the school. Listen for sounds. Tape record them. Later, see if the child can recognize the sound.

2. Present common sounds on tape (e.g., train whistle, thunder, telephone ringing) accompanying the sound with a picture initially.

3. Discuss the sounds that farm animals make. Whisper the name of the animal in each child's ear. Take turns calling on the children to identify the sound.

4. Play a matching game. Present pictures of common objects or animals on a flannel board, then make the sound and have the child point to the appropriate picture.

AWARENESS

Definition: The child gives consistent responses to stimuli.

Manifestations of Difficulty in Young Children

1. The child does not respond to his name.

2. The child cannot play simple games which require that he indicate or give a response to show that he has heard a sound.

3. The child cannot follow simple directions.

Procedures for Instruction

1. Have the child mimic the teacher's action:

clap
clap clap
clap -- clap, etc.

2. Give the child an instument (e.g., rhythm sticks, drum) to use to imitate your sound.

3. Place small hard items such as stones or beans in small containers or jars with covers. Have the child identify the contents through shaking and listening.

LOCALIZATION

Definition: The ability to locate the source and direction of sound.

Manifestations of Difficulty in Young Children

1. The child is easily distracted by background noises.

2. The child has no awareness of danger.

3. The child cannot tell whether a sound is coming from his right or left side or whether it is far or near.

Procedures for Instruction

1. Play "Hide and Seek" with the child. Direct him to the hiding place by calling to him.

2. Hold two large bells far apart; one bell can ring, while the other has the clapper taped to its inside. Shake both bells and ask the child to tell you which one is ringing. Change the hand which is holding the silent bell, hiding both hands behind your back.

3. Have the child follow you around the room mainly by sound. Hold a radio, blow a whistle, or tap your foot loudly to produce sounds.

ATTENTION

Definition: The child attends to a task.

Manifestations of Difficulty in Young Children

1. The child is easily distracted by activity or noise and cannot sit still.
2. The child cannot follow directions.
3. The child is more upset by physiological distress (hunger, etc). than other children.
4. The child has difficulty moving from one activity to another.

Procedures for Instruction

1. Position the child in an area where there are few distractions.
2. Reduce the auditory environmental stimuli as much as possible (e.g., use carrels, carpeting, ear phones, cotton in the ears.)
3. Precede questions or discussion times with "Listen."
4. Involve the child in many one-to-one activities, gradually including other children.
5. Play an echo speech game with the children. Whisper a word to a child; that child passes it on to the next child. (See if the children are attending long enough to pass the word along.) The game should progress from singular to 2-3 syllable words.

DISCRIMINATION

Definition: The ability to receive and differentiate between auditory stimuli.

Manifestations of Difficulty in Young Children

1. The child has difficulty associating an auditory and a visual symbol.
2. The child misunderstands similarly-sounding words.
3. The child does not distinguish sounds, such as "wed" for "red."
4. The child cannot discriminate the doorbell ringing from the telephone ringing.

Procedures for Instruction: Gross Auditory Discrimination Techniques

1. Have the child mimic animal sounds.

2. Have the child respond to varying volumes of a record player or radio. Have the child clap his hands over his ears when it is loud and put his fingers to his lips and say "Shhh" when it is soft.

3. Have the child close his eyes and listen for sounds around him, trying to identify them (e.g., ball bouncing, children running).

4. Fill "Legg's" panty hose or plastic pill containers with similar objects (e.g., marbles, jacks, bobby pins, spoons). Shake them. Have the child try to guess the sounds which are alike.

Procedures for Instruction: Fine Auditory Discrimination Techniques

1. Instruct the child to indicate if the second of two words is the same or different from the stimulus word: dog-fog, coat-boat, etc.

2. Have the child (who knows the alphabet) take a basket and try to find all of the things in the classroom which start with a particular sound (e.g., "B").

FIGURE-GROUND

Definition: The ability to separate foreground noises from background noises.

Manifestations of Difficulty in Young Children

1. The child experiences difficulty in focusing on a particular sound and would be distracted by other sounds in the environment (e.g., the child doesn't hear what the teacher is saying because he is focusing on playground noises).

2. The child is able to read aloud but unable to tell what he has read, since other sounds have captured his attention.

3. The child is unable to attend to specific listening tasks while music is being played softly in the background.

Procedures for Instruction

1. Play soft background music and produce a sound (e.g., a bell ringing). Have the child identify the presented sound.

2. Set an alarm clock to ring several times a day. Instruct the child to engage in a specific activity when the alarm rings (e.g., cover his/her ears, stand up) and then to return immediately to his/her original activity.

3. Tell a story that mentions the word "apple" several times and ask the child to stand up every time he hears the word.

ANALYSIS

Definition: The ability to perceive the order in which sounds occur.

Manifestations of Difficulty in Young Children

1. The child cannot associate the sounds in a word with the sounds of the letters which make up that word.

2. The child is unable to match pictures and objects which begin with the same sound.

3. The child is unable to break words into parts.

Procedures for Instruction

1. Tell a story which contains an absurdity and see if the child recognizes it, such as "eating dinner in the morning."

2. Use analogies in instruction. Elephants are big, birds are _____ You see with your eyes, you hear with your _____

SYNTHESIS

Definition: The ability to blend isolated parts into meaningful whole words.

Manifestations of Difficulty in Young Children

1. The child is unable to describe what is happening in an action picture.

2. The child is unable to connect first and last names of friends, family names, and family positions (e.g., who is oldest).

3. The child omits and distorts syllables in words.

Procedures for Instruction

1. Have the child determine a central theme in each list of words by indicating the word which does not belong (e.g., birds, bees, flies, and cars; John, Mary, Bill, and George).

2. Have the child tell you all the things he can find in a grocery store; in a kitchen; etc.

AUDITORY CLOSURE

Definition: The ability to produce a whole from parts which have been given.

Manifestations of Difficulty in Young Children

1. The child is unable to recognize incomplete words or make simple analogies.

2. The child cannot determine what a word is when only part of it is presented.

3. The child has difficulty completing number patterns presented orally.

Procedures for Instruction

1. Have the child verbalize the missing word in commonly-known material. For example, "Jack and Jill went up the _____."

2. Teach the child to listen to a beginning sentence stimulus and then to complete it by association: The color of this book is _____. My name is _____.

3. Say a word to the child; omit a sound in the word; have the child fill in the sound to make a meaningful word.

COMPREHENSION

Definition: The ability to understand the meaning of words.

Manifestations of Difficulty in Young Children

1. The child cannot listen to a story told aloud and pick out the main idea.

2. The child has difficulty in understanding complex instructions.

Procedures for Instruction

1. Give the child a series of commands and have the child follow them.

2. Give the child a paper with different pictures on it. Have the child underline the tree, put and "X" on the bird, etc.

3. Place assorted objects or pictures on the table. Have the child point to the object you describe. (E.g., "What is big, round, and bounces?")

MEMORY SPAN

Definition: The ability to retain and recall general auditory information.

Manifestations of Difficulty in Young Children

1. The child cannot remember the names of his various body parts.

2. The child cannot remember the difference between his right and his left.

3. The child has difficulty answering questions about a story just heard.

Procedures for Instruction

1. Have the child make the sound of a common animal.

2. Ask the child to tell what he had for breakfast that morning.

3. Give the child simple verbal instructions, such as "Please bring me the square block." Gradually add to the number of steps in the instructions.

4. Ask the child general time activities, such as, "What comes before Tuesday?".

RETRIEVAL

Definition: The ability to recall words.

Manifestations of Difficulty in Young Children

1. The child cannot recall the names of his classmates.

2. The child cannot recall a word unless a visual cue is paired with it.

3. The child will resort to pantomiming and drawing pictures to convey meaning.

Procedures for Instruction

1. Make a series of noises which the child must imitate.

2. Present pictures on cards (e.g., shoes and socks; needles and pins). Ask the child to look at the pictures and repeat the words. Present the pictures again, but only say the first word; have him add the second.

3. Allow the child to feel an object to aid in recall. Ask him to remember how the object felt and recall what its name is.

SEQUENCING SOUNDS IN WORDS

Definition: Retaining the correct order of the sounds in words.

Manifestations of Difficulty in Young Children

1. The child cannot retain a sequence of sounds, thus, he may transpose letters, such an "ememy" for "enemy."

2. The child's pronunciation is often distorted.

3. The child cannot follow any sequence of movements (e.g., he has difficulty in riding a tricycle since it calls for a sequence of movements).

Procedures for Instruction

1. Make a simple rhythmic pattern on a drum and ask the child to repeat it.

2. Have the child sing a song or a part of a song that is already known.

3. Have the child repeat digits or words (e.g., Say, "2, 6, 5, 3"; "up, down, in, out").

SYNTAX

Definition: Using appropriate verb tenses, word order, and pronunciation.

This is a skill which is highly sophisticated for young handicapped children. For information on instructional procedures, review Johnson & Myklebust (1967) and Zigmond & Cicci (1968).

GUSTATORY DISCRIMINATION

Have the child taste and discriminate among various foods, such as:

crackers
cereal
chocolate
marshmallow
pickle
lollipops
cool whip
sugar
honey
vanilla
mustard
cinnamon
syrup
salt
jelly
peanut butter.

OLFACTORY DISCRIMINATION

Have the child smell various smells. Eventually pair two diverse scents and have the child discriminate between them. E.g.,

perfume/onion
peanut butter/grape jelly
vinegar/vanilla extract
Vicks Vapo Rub/mint extract
cinnamon/garlic
lilacs/coffee
cookies baking/trash burning
hot chocolate/pine cones.

Introduce the "smells" of various holidays at the appropriate times in the year (e.g., "the smells of Christmas" include the pine tree).

TACTILE DISCRIMINATION

Have the child feel and discriminate between various substances, such as:

cardboard
corrugated paper
sandpaper
pine cones
cotton balls
sudsy water
ice
wet sponges
dry sponges
bean bags
marshmallows
finger paint
flour
sugar
fur
play dough.

PERCEPTUAL SKILL DEVELOPMENT FOR SEVERELY OR MODERATELY RETARDED CHILDREN*

Perceptual skills cannot be developed in isolation by young children

*Summary of suggestions made by Dr. A. Neil Kerns, Optometrist, and Perceptual Skill Development Consultant to the M-A-P Program.

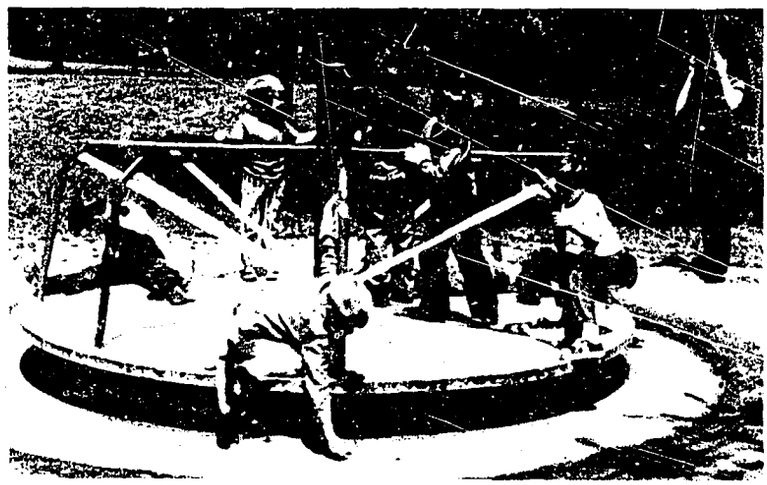
who possess moderate or severe retardation. Only through a coordinated perceptual-motor program can these children be expected to progress developmentally.

For effective perceptual growth, these children need:

1. Daily experiences in going through a prescribed maze in order to get out of their own body space and move;
2. Many integrative games which combine sensory and motor outputs (e.g., marching to a metronome, clapping patterns, etc);
3. Complete visual and audiologic evaluations to assess whether handicaps exist in these areas;
4. A visually and auditorally controlled environment;
5. Opportunities to explore various areas of sensory awareness (e.g., hot, cold; rough, smooth; heavy, light; sharp, dull; sweet, sour; etc.);
6. Individualized prescriptive instruction; and,
7. Instruction which is directed toward perceptual strengths.

CHAPTER 7

FIELD TRIPS



Field trips stimulate learning and enhance motor, academic, perceptual, and social skills. It is important, however, that the field trip be appropriate to the children's levels of development.

VARIABLES TO BE CONSIDERED

1. Length of Trip

   Reconsider the value of the trip, if it takes more than a half hour to reach the "site." Young normal children seldom possess the endurance to travel for long periods; a child with limitations will find this even more difficult. Children may have had extended travel to get to school and a lengthy field trip may defeat the educational opportunities to be derived from it.

2. Expense

   Consider the cost of the trip. An excursion can be enjoyable without being expensive. Many zoos, etc., waive admission fees for handicapped children and many franchised restaurants will provide free food and/or supplies (e.g., hats).

3. Staffing

   Provide each child with one-to-one supervision. College students, parents, and other interested individuals are often most willing to volunteer their services.

4. Content

   Arrange for the field trip to help the child attain specific objectives. It should be congruent with the unit being studied.

SUGGESTED FIELD TRIPS FOR YOUNG MULTIPLY HANDICAPPED CHILDREN

1. A nature walk to collect leaves to be mounted on construction paper.

2. A visit to an apple orchard to pick apples (perhaps from the ground) to be eaten later (substitute other apples).

3. A visit to a grocery store to buy food for juice-time.

4. A trip to a park to have a picnic.

5. A trip to a fruit market to buy fruit for dessert.

6. A trip to the post office to mail valentines.

7. A trip to a pet shop to see small animals (often this can be just as meaningful as a trip to a zoo).

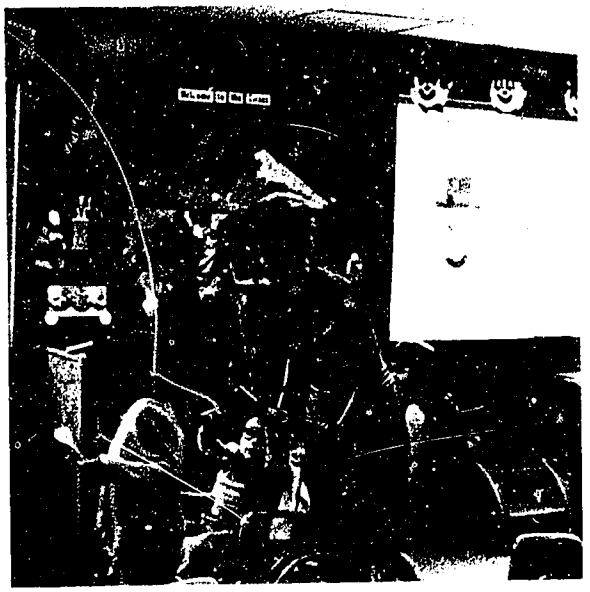
8. A trip to a farm to see the cows and horses.

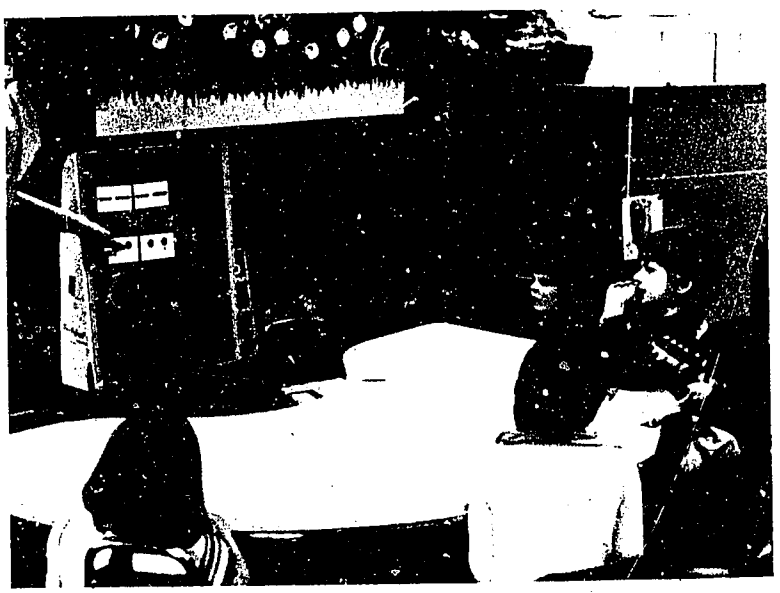
9. A trip to an ice cream store to buy an ice cream cone for dessert.

10. A trip to a fire station to climb onto a fire engine.

CHAPTER 8

INSTRUCTIONAL UNITS EMPHASIZING MOTOR-ACADEMIC-PERCEPTUAL SKILL DEVELOPMENT





Instruction of multiply handicapped children should always proceed systematically. The establishment of a central theme around which a variety of activities could be designed can enhance the learning process.

Units developed for young (pre-school age) multiply handicapped children should typically deal with routine concepts which help the child to learn more about himself (e.g., body parts) and his immediate environment (e.g., the home, the school). Toward the latter part of the school year, however, a teacher may choose to introduce a new dimension in instruction. A unit on the circus, for example (see Let's Go to the Circus, 1973), can add new cognitive understandings and strengthen basic perceptual-motor skills of young children who are handicapped intellectually, physically, emotionally, and/or socially.

A series of classroom experiences which involve movement, sight, sound, smell, taste, and touch should be included in any unit. It is also recommended that the teacher:

1. Evaluate continuously. Assess each child on an evaluation chart prior to, during, and after instruction.
2. Introduce only one concept at a time. Use that concept throughout the day in various sensory modalities.
3. Make learning materials whenever possible.
4. Teach to small groups of children (maximum of 5) at all times.
5. Repeat stories; show films and/or filmstrips several times.
6. Adapt suggested activities to meet the needs of specific children.
7. Plan for several short activities rather than a few long ones.
8. Take pictures (slides) of the children engaged in activities throughout the early part of the unit. These pictures can be included in a final review of the unit.

TEACHER-MADE MATERIALS

These materials should be developed by the teachers, introduced at some time during the unit, and made available during free play times throughout the unit.

Bean Bags

Bean bags may be made with denim material which is double-stitched into various shapes (e.g., squares, triangles, circles). Eight bags can be made from a square yard of material and 4 lbs. of medium-sized navy beans.

Flannel Board Stories

Teachers can create exciting flannel board stories by pasting a piece of flannel on the back of pictures of items appropriate to the unit and using these pictures (only two or three at a time) to tell a story.

Matching Cards

Pictures of related-materials can be cut out of two identical dime store books and pasted on 8" X 8" squares of cardboard. Children can develop matching and discrimination skills through their use.

Puzzles

Simple puzzles of objects associated with the unit can be made easily by the teacher.

1. Cut the design out of a piece of cardboard.
2. Paste the stencil on another piece of cardboard.
3. The cut-out design can be inserted easily in the puzzle.

These puzzles can be made simple or complex, depending on the child's level of functioning.

Sewing Cards

Sewing cards help to enhance fine motor skills. Make them for each concept introduced by punching large holes in the outline of a particular

picture. Have the children weave a shoe lace or a heavy piece of string in and out through the holes.

Songs

Songs which are written by the teacher can be made very simple. They are more appropriate for handicapped children than any other songs. For example:

(to the tune of the Campbell's Soup song)

"Circus time
Circus time
Come! Come! Come!
It's circus time."

"Touch my nose
Touch my nose
Touch! Touch! Touch!
My little nose."

Other tunes can be adapted easily to a particular theme.

SUGGESTED CONCEPTS AROUND WHICH UNITS FOR YOUNG MULTIPLY HANDICAPPED CHILDREN COULD BE DEVELOPED

Body Parts

Through a series of learning experiences, the child should be able:

1. To locate his/her own body parts;
2. To discriminate his/her body parts from others';
3. To discriminate pictures of certain body parts from pictures of other body parts;
4. To locate body parts in pictures; and,
5. To verbalize the names of body parts.

Family Members

Through a series of learning experiences, the child should be able:

1. To match pictures of family members;

2. To differentiate between a picture of the child's own family and a picture of another family;

3. To associate family member's name with toy family (e.g., mother with mother doll);

4. To classify as a family member;

5. To verbalize "label" (e.g., mother) of family member; and,

6. To state relationships among family members.

Clothing

Through a series of learning experiences, the child should be able:

1. To match concrete objects of clothing;

2. To discriminate among objects of clothing;

3. To discriminate between own clothing and the clothing of others;

4. To discriminate among pictures of various types of clothing;

5. To associate the article of clothing with the part of the body which it covers;

6. To associate the article of clothing with other articles of clothing (e.g., sock and shoe);

7. To associate the article of clothing with the weather;

8. To name the article of clothing; and,

9. To classify as clothing.

Animals

Through a series of learning experiences, the child should be able:

1. To match toy animals;

2. To discriminate among toy animals;

3. To discriminate among pictures of animals;

4. To associate the sound of the animal with the animal;

5. To classify as animal;

6. To imitate the animal's movements (e.g., walking, flying, swimming);

7. To imitate verbalization of the name of the animal; and,

8. To identify the animal through verbalization.

Fruits (and/or Vegetables)

Through a series of learning experiences, the child should be able:

1. To match actual pieces of fruit;

2. To discriminate visually among pieces of fruit;

3. To discriminate visually among pictures of fruit;

4. To discriminate tactilely among pieces of fruit;

5. To point to a specific piece of fruit in a complex picture;

6. To imitate the verbalization of the name of a fruit;

7. To verbalize in answer to "what is this?" the name of the fruit; and,

8. To classify the piece of fruit as fruit.

Housecleaning Articles

Through a series of learning experiences, the child should be able:

1. To match concrete housecleaning articles;

2. To imitate the use of the article;

3. To demonstrate the use of the article in response to a verbal direction;

4. To discriminate among actual cleaning articles;

5. To discriminate among pictures of articles;

6. To associate with another article(e.g., broom with dust pan);

7. To imitate the verbalization of the name of the article;

8. To verbalize the name of the article in response to "what is this?"; and,

9. To classify as an article with which you clean.

Tools

Through a series of learning experiences, the child should be able:

1. To match concrete tools;

2. To discriminate actual tools from one another;

3. To demonstrate use of the tools with the actual objects;

4. To find the tool in a picture;

5. To associate the tool with its function;

6. To verbalize the name of the tool in response to "what is this?"; and,

7. To classify as a tool.

Things We Ride

Through a series of learning experiences, the child should be able:

1. To match toy vehicles;

2. To discriminate among vehicles;

3. To discriminate among pictures of vehicles;

4. To indicate the mode of travel (e.g., land, sea, air);

5. To imitate the verbalization of the name of the vehicle;

6. To verbalize the name of the vehicle in response to "what is this?"; and,

7. To classify as "things we ride."

Musical Instruments

Through a series of learning experiences, the child should be able:

1. To match instruments;

2. To discriminate visually among instruments;

3. To discriminate visually among pictures of the instruments;

4. To pantomime the use of the instrument;

5. To locate the instrument in a picture of people with various instruments;

6. To verbalize the name of the instrument;

7. To classify the instrument as a music maker;

8. To discriminate among the sounds of the instruments; and,

9. To use the instrument rhythmically.

Facial Expressions (e.g., sad, happy, surprised, angry)

Through a series of learning experiences, the child should be able:

1. To imitate the expression;

2. To match pictures of people using the expression;

3. To discriminate among the teacher's expressions;

4. To pantomime the expression;

5. To interpret pictures (e.g., "How does he feel?"); and,

6. To state the cause of feelings.

Holidays [objects associated with Halloween, Thanksgiving, Christmas (Chanukah), Valentines' Day, Easter, Birthday]

Through a series of learning experiences, the child should be able:

1. To match objects;

2. To discriminate among objects visually;

3. To discriminate among objects tactilely;

4. To associate the object with the particular holiday;

5. To name the object through imitation; and,

6. To name the object in response to the verbalization of "what is this?".

Other topics (around which a variety of experiences could be developed), which are appropriate for young handicapped children, include:

1. Buildings
2. Furniture
3. Nature
4. Basic Colors
5. Familiar Toys
6. Opposites
   - Same, different
   - Open, shut
   - Empty, full
   - Soft, hard
   - Fat, thin*
   - More, less*
7. Position (first, last)*
8. Verbs (drink, swim, ride, eat, throw)
9. Appropriate responses to : in, off, out, under, over, around, behind, between, up, down*
10. Size (big, little, long, short)
11. Shapes (circle, square, triangle).

INSTRUCTIONAL UNITS FOR TEACHING ABSTRACT TERMS

Multiply handicapped young children need a series of concrete experiences in order to understand prepositions, such as "up," "down," "in," "out," etc., and nontangible adjectives, such as "same" and "different." It is essential

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*Only for very able children.

that several complete days' lessons be devoted to each of these concepts and that only one abstract concept be introduced at a time.

The following suggested activities utilize this approach in teaching to concept "same."

ACTIVITIES FOR TEACHING THE CONCEPT "SAME"*

Small Group Cognitive Lesson

1. Have two identical objects on your desk (e.g., apples). Have the child put "same on same."

2. Gradually add a third "junk" stimulus (e.g., toy car). Have the child put "same on same."

3. Eventually substitute other sets of concrete objects.

Gross Motor Activities

1. Hide apples in the room. Have the child look and "find all the ones that look just the same" as yours. (Show one.) Hide the apples so that the child will have to climb up, get down on the floor, etc.

2. Attach a geometric shape to the shoes of each child. Place the same geometric shapes around the room. Model the desired behavior by putting same (as shape on shoe) on same (as shape of floor). Have the child step on the ones that are just the same as the ones on the shoes.

3. Play the "Look and See Game." Say, "Look, see, I can do this. (Jump) Look, see, I can do this. (Jump) Look, see, I can do this. (Jump again) You can do the same if you just watch me." (Jump) Give the child a turn.

4. Take one shoe (or have the child take it off) from each of 3-4 children and put the shoes in a pile in the room. Have each child keep the other shoe on his/her foot. Mix up the shoes. Instruct each child to try to find the

*A modification of activities developed by A. Sanford, Director, Chapel Hill-Outreach Project, Chapel Hill, North Carolina.

shoe that looks just the same as the one he/she has on. When they find the one that looks just the same, they can put it on. Later, use the same method for socks. If children master this, have them take off both shoes. Then, have them find the ones that look the same in the pile.

Juice Time

1. Put two varieties of cookies on a paper plate (e.g., graham crackers and ginger bread men). Give the child one. Ask him to find another that is the same.

2. Use two different color napkins. Show one color and ask every child t d the "same."

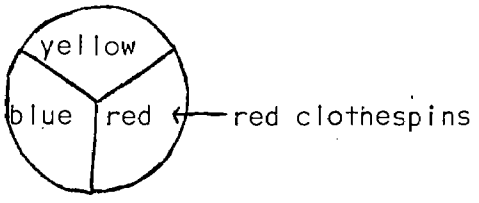
3. Show a juice cup. Ask the child to show you one that is the same. (Ask children who can count, how many are the same.)

Perceptual-Motor Activities

1. Put one round bead on a string. Ask the child to put all the ones which are shaped the same on the string (the child has to discriminate the round beads from the other shaped beads; if the round beads are all "red" initially and the other beads are other colors, a general same can be more easily understood.

2. Make a pattern on a pegboard. Ask the child to make one that looks the same. Start with two pegs and gradually add others to make a more difficult task.

3. Have the child put the same color clothespins on the appropriate color on the color wheel. E.g.,



4. Use a shape or sorting box. Have the child put "same in same."

5. Have geometric figures drawn on a sheet of paper. Ask the child to draw figures which look the same.

Art Activities (Fine Motor)

1. Have the child match shapes to the same shape which is drawn on construction paper. Give the child shapes and ask him to put "same on same." Then have him paste "same on same." Start with only one shape on the paper (e.g., ).

   Increase the difficulty by adding more and different shapes as the child's skills increase.

2. Eventually give the child a picture with distracting stimuli (e.g., with obvious figure-ground) and have him match and paste "same on same."

3. Give each child a box with assorted objects in it (e.g., different color tooth-picks, cut-up straws, small sticks, rocks, etc.). Tell the child to find the one that is the same as yours (e.g., hold up a red toothpick). Those that match correctly can then stick "their findings" into a large piece of play dough (this then becomes a stabile and can be used to decorate the room).

Individual Lessons

1. Have two objects on your desk. Ask the child to put "same on same." Move to three objects, then four, etc.

2. Present stimulus cards (e.g., pictures of people, clothing, etc.--cut out two pictures from two identical Sears catalogs). Have the child put "same on same."

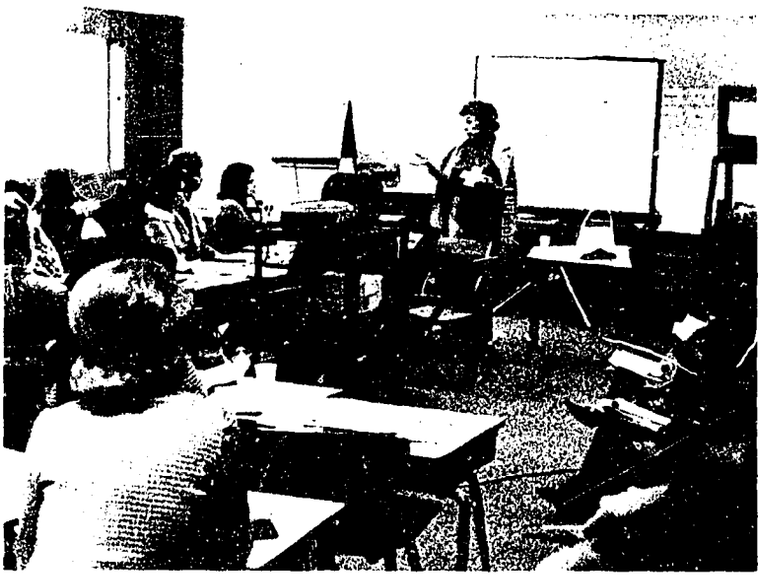
3. Have two boxes. Ask the child to put same in same. Mix up different objects and give a model to the child.

4. Play a lotto game. Have the child "put same on same." Have each object or figure drawn on cards for the child to put on the lotto board. Cover up part of the board until the child can do all four pictures. (This can be played with a small group.)

5. Give the child a worksheet with pictures on it. Repeat one picture several times and also place this picture on a separate part of the page (e.g., top). Ask the child to "mark all of the pictures which look the same as this one"--point to the separately-positioned picture. (Note: You might have to teach the child what MARK means, first.)

CHAPTER 9

TEACHER IN-SERVICE TRAINING



Regardless of the teacher's level of training or experience, teachers of classes for young multiply handicapped children require on-going in-service training. Each child with his combination of limitations needs to be approached in a unique way; when opportunities are provided for teachers to receive new ideas and further develop basic skills, additional child learning can occur.

APPROACHES

Teacher in-service training can be effected through the following techniques.

1. Films

   Teachers may view and discuss films. (E.g., "Teaching the Mentally Retarded: A Positive Approach"; "Aids for Teaching the Mentally Retarded--Motor Training; Initial Perceptual Training.")

2. Visitations

   Teachers may observe comparable classes within the teacher's own school system as well as outside the system.

3. Speakers

   University faculty and other professionals could speak with teachers on various topics. E.g.:
   a. Techniques of curricular development;
   b. Approaches which can be used in writing behavioral prescriptions;
   c. Behavior modification techniques;
   d. Prescriptive teaching;
   e. Micro-teaching techniques;
   f. Teaching academic skills through movement; and/or,
   g. Preventive dental care.

4. Video-Tape Experiences

   A teacher can often enhance teaching techniques by evaluating herself/himself by viewing video-taped lessons. (See Teacher Evaluation Form, Appendix J.)

5. Supervision

   Teachers appreciate specific suggestions which supervisors are able to provide. The supervisor must also extend emotional support to the teacher.

USE OF EDUCATIONAL CONSULTANTS

Faculty at nearby colleges or universities in Departments of Special Education, Educational Psychology, Early Childhood Education, and Physical Education can serve as a source of excellent resources for a class of young multiply handicapped children. Their expertise can be tapped during teacher in-service training on specialized topics (e.g., behavior modification techniques, adaptive physical education for the severely retarded, etc.) and through their direct involvement in the classroom (e.g., demonstrating how to work with a particular child).

The long term effectiveness of any consultation is enhanced by consistent follow-up sessions under the guidance of a staff supervisor. Teachers quickly revert back to less effective, but more personally comfortable strategies if not given ongoing support.

CHAPTER 10

PARENT INVOLVEMENT IN THE SCHOOL PROGRAM

Programs for young handicapped children can be successful only when parents are extensively involved in the school program. Since the needs of particular parents are as varied as the needs of exceptional children, different kinds of approaches and programs must be made available. Some parents will need to be involved because they want to learn new ways to enhance their children's cognitive skills; others would like to know how to foster their children's social development; others may need the emotional support which the teacher and other parents of handicapped children can provide; and, others may need answers to questions regarding legal rights of the handicapped. "A good parent program is based on a recognition of individual differences among parents and the provision of activities to meet individual parent needs" (Kernes & Zehrbach, 1972, p. 7).

PARENT NEEDS*

The parent of a young handicapped child needs information, service, and support.

Information

Information includes the sharing of those events which will help the parent and/or the teacher. Be honest in terms of what the parent can understand. If you are talking about diagnostic tests, be sure you explain

*A modification of a presentation by Deryl W. Torbert, M. S. W., Developmental Disabilities Training Institute, Durham, North Carolina, January 24, 1973.

the test and tell the parent more than the "score"; only use the term "IQ" if it makes a difference to the parent. The parent wants to get to know and trust you; talk about your program proudly and show enthusiasm (but realism) in terms of what can be expected from his/her child.

Don't hesitate to ask those questions which will make the child's instruction easier (e.g., How does he eat?; What does he dislike?; What makes him angry?; How well does he get along with strangers?).

Service

Ask the parents to provide the same services for their children which other parents provide. Give them the opportunity to meet their obligations like everybody else does.

Suport

Parents of young handicapped children need financial, physical, but especially emotional support. It is very frightening for parents of normal children to visit regular school programs. Parents of children who are handicapped are very frightened until a door is opened to them.

TECHNIQUES OF INVOLVING PARENTS IN THE SCHOOL PROGRAM

Large group meetings, small group meetings, individual conferences, classroom observations, volunteer activities, and correspondence (questionnaires) through the mail have served to involve effectively 92% of the parents of the children enrolled in the M-A-P Project 1972-73.

LARGE GROUP MEETINGS

Purpose: To provide information quickly and easily to the parents of all of the children in a particular class(es) at the same time.

Suggested Topics Which Would Be of Interest to All of the Parents

1. "The School Program" (Program director/teacher describes the program in detail)

2. "These Are the Children" (A slide presentation of all of the children involved in classroom activities)

3. "Preventive Dental Care"

4. "Parent Panels" (A panel of parents of older handicapped children can be a highly effective teaching device for parents and teachers alike. Parents of young handicapped children can be reassured extensively by the parent who has experienced many of the same problems. The panel should be composed of parents: who are willing to talk; and, who possess emotional stability.)

Advantages

1. The timid, quiet parent can sit quietly without feeling uncomfortable.

2. Topics can be selected which the parents may not be aware of, but which can be helpful to them.

3. Perhaps for the first time, parents are involved in a group where they can talk freely about their children.

Techniques

1. Involve parents in selecting topics, date, and hour of the meeting. (Often an afternoon meeting is best since a parent may not wish to leave the handicapped child with a babysitter.)

2. Schedule meetings no more frequently than once a month.

3. Notify parents of the meetings through several media (personal letters, phone calls, notes sent home with the children).

4. Be sure first to notify parents at least 10 days in advance and then send follow-up reminders the day before the meeting.

5. Provide baby sitting (for younger children who might be at home) at the site of the meeting.

6. Try to assist parents in arranging for transportation.

7. Provide refreshments at meetings.

8. Maintain notes on informal conversations with parents, to guide them into activities which meet their specific needs.

SMALL GROUP MEETINGS

Purpose: To bring together two to five different parents whose children have similar needs (e.g., parents whose children are not toilet-trained).

Suggested Topics

Any topics about which all of the parents are concerned (e.g., "Stimulating Speech," "Teaching Self-Feeding Skills").

Advantages

1. Opportunities for informal interaction are extensive.

2. When the meeting is held in the home of a parent, a general relaxed feeling is particularly apparent.

3. Effective management and child training procedures can be presented.

4. Parents have the opportunity to share the responsibility of their children's upbringing with someone else.

Techniques

1. Have parents share the responsibility for holding meetings.

2. Arrange for frequent meetings.

3. Give careful attention to the social, emotional, and intellectual needs of the group.

4. Direct the conversation to topics which are of particular concern to the parents.

5. Establish the length of the meeting in advance.

6. Record all pertinent information which is discussed during the meeting.

INDIVIDUAL CONFERENCES

Purpose: To involve parents whose needs cannot be met in a group situation and those who need very specific suggestions or support in dealing with their handicapped child.

Advantages

1. Flexibility in time, place (sometimes over the phone is best for a particular parent), and content.

2. Assurance of confidentiality can be extended.

3. Content can be specific to the parent's child.

Techniques

1. Make the parent feel comfortable and accepted.

2. Avoid creating a dependent or too close personal relationship.

3. Keep the discussion focused on the child and avoid eliciting material which the teacher is not qualified to handle.

4. Initiate the conferences on a planned basis and establish a definite time limit.

5. Maintain detailed records of the conference.

CLASSROOM OBSERVATION

Purpose: To enable the parent to see firsthand approaches which can be used in dealing with his/her specific child.

Advantages

1. The parent can observe his/her child in a different situation than he/she usually sees the child at home.

2. The parent can become acquainted with the kinds of materials which are appropriate for a specific child.

Techniques

1. Advise the parent of what will be happening in the class before he/she enters the room.

2. Establish limits for the length of the visit.

3. Show the parent how to work with his/her child in such a way so as not to make the parent feel inferior (show how to hold a book, how to ask the child questions, how to reinforce the child for appropriate responses, etc.).

4. Instruct the parent in advance not to interfere during the teacher's work with the child.

5. Permit the parent to work with a child other than his/her own.

VOLUNTEER ACTIVITIES

Purpose: To enhance the education of young multiply handicapped children and to give the parent an opportunity to help others during the time which might otherwise be spent worrying about the handicapped child.

Suggested Activities

1. Assisting in a classroom other than the one in which his/her child is enrolled.

2. Publishing a newsletter.

3. Making presentations about programs for the handicapped at community meetings, etc.

4. Serving on advisory boards.

5. Making instructional materials for classroom use (e.g., fathers with good carpentry skills can help considerably).

6. Accompanying the class on field trips.

Advantages

1. The parent who may not enjoy direct contact with people can contribute indirectly to his/her child's school program.

2. The parent has an opportunity to feel useful by helping others.

3. Reassurance that others may have similar problems results.

Techniques

1. Suggest different ways that parents can become involved directly in the school program at the start of the year.

2. Compliment the parents lavishly on their efforts to help other children.

3. Respond supportively to any activity in which the parents show interest.

CORRESPONDENCE AND QUESTIONNAIRES

Purpose: To obtain specific information about the child's level of functioning (as perceived by the parent) in a controlled form, and to keep the parent informed about the school program.

Advantages

1. Specific information can be obtained easily.

2. Planning for the child can be enhanced with parent input.

Techniques

1. Mail a questionnaire, etc., with specific questions and detailed directions to the parents.

2. Be sure to enclose a stamped, self-addressed envelope for any materials which are to be returned.

3. Have parents assist in evaluation of each child's progress. Send checklists and other devices on which teachers are evaluating the children, home to parents at periodic intervals during the school year. [The M-A-P Skill Development Checklist (See Appendix A) was completed easily by parents; the results were highly congruent with teacher evaluations.]

4. Mail newsletters (with the children pictured in them) home regularly.

5. Send weekly reports home with the child. Include:
   a. "What your child can do";
   b. "What you can do with the child at home";
   c. Worksheets for parents to work on with the child. (E.g., This can even involve the child's tearing the paper--a worksheet does not have to mean "paper-and-pencil tasks".)

6. Send home lists of toys and household materials (e.g., wooden spoons) which are appropriate for the particular child. This provides ideas for the parent for Christmas (Chanukah), birthday, and other gift-giving occasions.

HOME ACTIVITY SUGGESTIONS FOR PARENTS*

FOR CHILDREN WITH MENTAL AGES OF 2 YEARS AND UNDER

Level IA

1. Putting clothes pins in a box

   a. Show the child how to take the pins out of the box and put them back in again. This enables him to become acquainted with them.

   b. Later, have the child clip the pins around the sides of the box. At first, he will probably do this in a hit or miss manner; eventually, have him slip them around each edge so that they form a little fence around the box.

2. Throwing bean bags

   a. Have the child throw the bean bag to the mother or other children. (Throwing is easier than catching.)

   b. Have a box or a basket into which the child may throw the bean bag.

   c. Increase the throwing distance gradually and decrease the size of the receptacle to maintain child interest as the child becomes more skillful.

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*A summary of suggested activities compiled by the Special Education Department, Indiana County Schools (now a part of the ARIN Intermediate Unit), Title VI, ESEA Publication, Mrs. Alice H. Davis, (Ed.), 1970.

3. Nesting blocks

   a. Allow the child to build with the blocks in his own manner.

   b. After the child becomes familiar with the blocks teach him to start with the largest and build the blocks up to the smallest on the top.

   c. Teach the child to put a block within a block. Begin with the largest one, then add smaller ones, and continue to the smallest block. (The nest of blocks may be purchased in any 5 and 10¢ store.)

4. Pouring water

   a. Teach the child to pour water from one container to another during outside play or during the bath. (The child enjoys doing this, and it is helpful in strengthening and controlling the muscles of the hands.)

   b. Have the child pour sand in the same manner.

Level IB

1. Sorting small articles: shells, stones, beans

   a. Give the child a box with shells, small stones, and beans all mixed together. First, allow the child to play with them.

   b. Take out one of each and arrange them on a table at a slight distance from each other so that the child can add to them; when he is finished, he has made three piles: one of shells, one of small stones, and one of beans.

2. Bouncing ball on a string

   Allow the child to bounce a bat ball which is attached by a rubber string.

3. Playing with sand toys and molds

   Have the child make molds of sand with pails and toy tin molds during weather when the child may play out-of-doors. In the winter, the child may do similar things with the snow.

Level IC

1. Matching colored blocks or spools

   a. Use only two colors of blocks or spools, (e.g., red and yellow). Hold up a red block or spool and ask the child to find another block or spool which looks the same. In the beginning, the name of the color need not be mentioned. When the child is able to distinguish red from yellow, the mother should begin naming the color each time when asking the child to match the spool or block. When the child picks out the right color, he should be encouraged to repeat the name after mother.

   b. Add another color after the child recognizes red and yellow easily; blue might be introduced next. In the same manner, the color green should be taught. After the child knows all four colors (red, yellow, blue, and green), and has no difficulty in distinguishing them, orange, purple, and other colors may be introduced.

2. Working with crayons

   a. Teach the child how to hold crayons and allow him/her to color at random on plain paper. Newspaper can also be used as a material on which the child can color.

   b. After the child has the idea of handling the crayon, draw strips to be colored. These may be used for cutting out and making chains of paper later. Columns of newspapers can also be used.

3. Spinning a top

   a. Teach the child to spin a non-mechanical top by twirling the stem of it by the fingers. This is good exercise for the child and aids in developing hand control.

   b. If at first a non-mechanical top seems too difficult and discouraging to the child, a winding mechanical top may be used instead.

Level ID

1. Playing the items game

   Take two spools, two blocks about the same size, two clothes pins, etc.; put these on the table in view of the child. Pick up one item, such as a spool, and show it to the child;

ask the child to find another spool. Repeat this with all of the other items. Add more difficult articles as the child learns the ones already used.

2. Naming animals from picture books

   a. Tell the child the names of animals appearing in papers, children's picture books, etc., and have the child repeat the names.

   b. The same method may be used in having the child name other objects in pictures.

3. Bubble blowing and feather blowing

   Purchase "bubble stuff" at a 5 & 10¢ store. Bubble blowing will help to correct breathing. Blowing light downy feathers is also helpful.

Level IE

1. Cutting with blunt-ended scissors

   a. Let the child cut at random and become familiar with scissors.

   b. Later, teach the child to cut strips which he has colored. This means that he must cut along lines. He will need supervision in learning to cut straight lines.

2. Chaining

   Show the child how to make a paper chain by pasting the strips which he has colored and cut. The paper strips may be any length. Paste the ends together making a link. Link the next strip in this ring and paste the ends together. Continue the chain by linking each strip into the next link. Varied colors hold interest longer, are attractive, and may be used for many kinds of ornaments and decorations.

3. Buttoning holes

   a. Make button strips by folding a strip of cloth (about 12 inches long and 3 inches wide) from one end of the length to the other. On the top of the cloth, the mother should make 2 or 3 button holes of large size. Underneath, she sews the buttons so that the child can button the bottom strip to the top.

   b. Use large button holes and buttons first. When the child does these well, smaller button holes and buttons may be used. By using these button strips, children learn to button their clothes.

FOR CHILDREN WITH MENTAL AGES OF 2-5

Level IIA

1. Reviewing Level I activities

2. Stringing wooden beads

   Disregard color and shape and have the child string beads at random.

3. Touch training

   Begin with four articles. Place them on a table until the child knows the names of them; next, put these articles in a bag and ask the child to reach in and tell the name of what he (she) has in his (her) hand by touch before he takes it out of the bag.

   Suggestions for articles:

spoon	potato
cup	pencil
ball	pan
orange	block

   When the child becomes familiar with the articles and knows them well, new and more difficult ones should be added. (Perhaps a new object might be added weekly until there are twelve articles in the bag.)

4. Matching colored sticks to cloth

   a. First give the child two sticks of different colors (two pieces of oilcloth in the same colors should be placed on a table). Ask the child to match the sticks to the same color cloth. (No suggestions of the name of the color need to be given until the child is familiar with the difference.)

   b. Later, add other colors, one at a time.

Level IIB

1. Stringing wooden beads by color

   a. Have the child string all of the red beads. (If the child does not yet know colors by name, hold up a red bead and ask the child to string all of this color.)

   b. Repeat the same with other colors: yellow, blue, green.

2. Lacing cards

   Have the child lace in and out of the holes in the card. Begin lacing with thin shoe strings with firm ends.

3. Cutting

   a. After the child is able to cut straight lines, draw curves for the child to follow.

   b. After two or three weeks, or when the child cuts lines well, draw circles, squares, and triangles for cutting.

4. Smell training

   a. Take a few minutes (when mother is in the kitchen) and have the child smell different ingredients which are used in cooking. After the child smells them, have him/her tell whether they give a "good" smell or a "bad" smell. Tell the child the name of the ingredients each time and ask the child to repeat it after you. (Do not expect the child to recognize items by smell at first. In time, he/she should gradually become familiar with them and name the ingredients when he/she smells them. It is suggested that mother start with two ingredients.)

      Suggestions for ingredients:

Cocoa	Peppermint	Clove
Vinegar	Vanilla	Coffee

   b. Add two or three new ingredients each week. (Be careful not to add them too quickly, or the child will become confused and frustrated.)

5. Playing the observation game

   Use such articles as:

spoon	potato
cup	pencil
ball	pan
orange	block

   Use only three articles at first, place them on a table so that the child can observe them for a short time. Name each article. Blindfold the child or have him go out of the room while one object is taken away. After doing this, ask the child to observe the articles on the table and tell what is missing. Whenever advisable, add another article to make the game more difficult, or remove more than one.

Level IIC

1. Stringing beads by shape or color

   a. Have the child first string one square bead, then one round. Continue this until the child knows the difference and then introduce the cylinder-type bead.

   b. Have the child string beads according to color. Ask the child to sting all of the red beads; all of the green beads; etc.

   c. Have the child string beads in a color pattern; for example, a red bead, a blue bead, a red bead, a blue bead, etc.

2. Putting pegs into a board

   a. Teach the child to place pegs in holes. Disregard the naming of colors until the child does the peg work easily.

   b. When the child has no difficulty in doing this, ask him/her to name the colors of the pegs as they are placed.

3. Taste training

   Use the same approach as suggested for smell training.

   Use such substances as: sugar, salt, milk, chocolate, orange, lemon, candy Life Savers.

   Have the child taste two or three ingredients and tell whether they are "good" or "bad" tasting. After this, the mother names the ingredients. The child may be taught to repeat the names each time. The child will eventually associate the name with the taste.

4. Touch training

   Continue touch training as previously suggested, but add more articles.

5. Smell training

   Add other ingredients when the child appears to have learned those already given. Do not add more than one every two or three days. Suggestions: molasses, perfume, onion.

   Always tell the child the names of the ingredients. Whenever he shows dislike, do not force these ingredients upon him, for it shows he understands the difference between pleasant and unpleasant odors. This also applies to taste.

Level IID

1. Stringing beads by counting 1 and 2

   a. Ask the child to string one red, one blue, one yellow, and one green bead. Have him do this until he becomes acquainted with the idea of one. (This may take several weeks.)

   b. When the child knows what one is, ask him then to string two red, two blue, two yellow, and two green.

   c. After the child knows one and two, ask him to string one blue, two green, one yellow, two blue, etc., and continue this using the different colors and the one and two.

   d. Later, as the child strings the beads, have him repeat, "one red." When he is stringing the two red have him say, "two red."

2. Putting pegs in a small peg board

   a. When the child knows colors well, have him/her make rows with different colored pegs. Have him/her make the first row all red, the second row all blue, the third row all yellow, etc., until he has finished.

   b. Later, have the child make a square; all the outer row blue, the next row all around yellow, the next row all around green, etc.

3. Using crayons and cutting

   a. Have the child color any designs or pictures in the newspapers or magazines using red, yellow, blue, and green crayons.

   b. Have the child cut out simple pictures from newspapers and magazines and save the best ones for pasting in a scrapbook.

Level IIE

1. Stringing beads and counting

   Continue to have the child string beads in the same manner as previously suggested. Have the child count to five.

2. Weaving heavy paper

   Using heavy colored paper, have the child cut the strips carefully and weave these into the slits. Permit the child to use any colors he wishes in this design.

3. Letters - A, B, C

   a. First take a cardboard letter A from a box. Show the child this cut-out letter A and have him find another A. (Have only A's in the box so that the child meets with immediate success.)

   b. Then add one other letter, and have the child find the A's.

   c. Later do the same with B and continue with the letter C until the child gradually learns the letters A, B, C.

   d. When the child has learned A, B, C, have him choose the letter that you ask for. For example: A and then C, etc., and make a game of this.

SUGGESTIONS FOR PARENTS DURING THE SUMMER MONTHS

1. Keep your child on a regular schedule. Wake him/her up at the same time each day.

2. Provide your child with specific things to do on a schedule (e.g., breakfast, outside play with a tricycle, indoor play with puzzles, record listening, lunch, rest time, etc.) (The teacher should send home a list of toys and learning materials that the child has enjoyed in school so that the parent can provide the child with activities which are most appropriate for his/her level of development.)

3. Play with your child. Many handicapped children do not know how to play or explore toys by themselves.

4. Be patient. New learning takes time.

5. Allow your child to share in your activities. When you go to the supermarket, bank, etc., take your child with you. These brief trips are all learning experiences for your child.

6. Continue to involve your child in those self-care activities in which he has participated in school. (The teacher should also send a list of these.)

   a. If he is learning appropriate eating skills, continue working with him to help him feed himself properly with a spoon, etc.

   b. If he is learning toileting procedures, continue to place him on the toilet at regular intervals (keeping a schedule of when he is successful).

c. If he is learning to dress himself or tie his shoes, work with him in developing these skills. (Remember, it is easier to undress than dress, so start here.)

7. Stimulate your child's language development.

   a. If your child is nonverbal, imitate his babbles; attach meaning to any sound he makes (e.g., to a "ba" sound, present a ball).

   b. If your child speaks in one-word statements, repeat what he says with additional words (e.g., child says "drink," you may say "Here is a drink" as you give it to him).

PUBLICATIONS FOR PARENTS OF YOUNG HANDICAPPED CHILDREN

Books

Blanton, E. A Helpful Guide in the Training of a Mentally Retarded Child. New York: National Association for Retarded Children, 420 Lexington Avenue, 1968.

Includes activities classified by mental age levels and suggestions for the care and training of retarded children.

Kirk, S. A. Educating Exceptional Children. (2nd ed.) Boston: Houghton Mifflin, 1972.

Describes various handicaps which occur in childhood and includes "A Guide to Agencies and Organizations Concerned with Exceptional Children" (with addresses).

Journal

_____. The Exceptional Parent. Boston: Psy-Ed Corporation, Beacon Street. (Subscription $12.00/year)

Contains articles which focus on the task of raising a child who has a disability.

Pamphlets

Public Affairs Pamphlets
381 Park Avenue South
New York, New York

Inexpensive pamphlets on the following topics are available upon request of parents of handicapped preschoolers:

"Cerebral Palsy - More Hope Than Ever"
"Epilepsy - Today's Encouraging Outlook"
"How to Discipline Your Child"
"How to Help Your Handicapped Child"
"Parents' Guide to Children's Vision"
"The Retarded Child Gets Ready for School"
"What Should Parents Expect From Children"
"Your Child's Emotional Health."

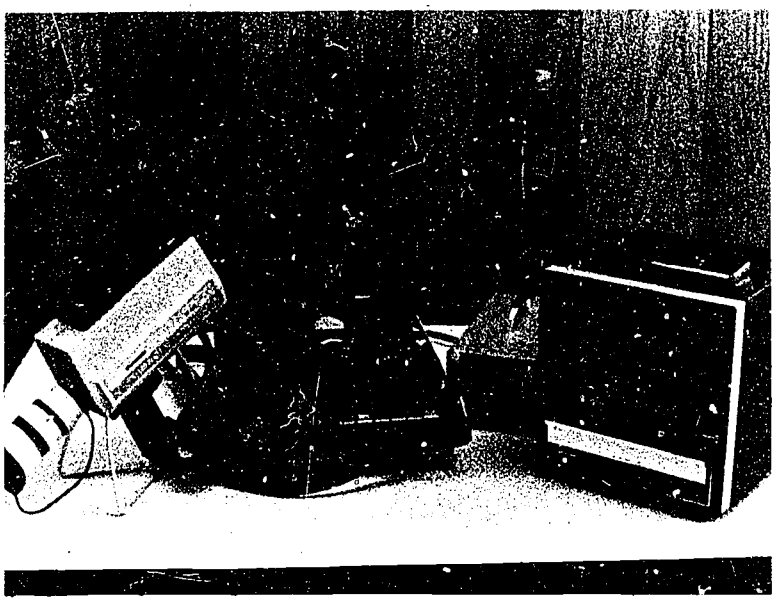
Children's Bureau Pamphlets
U. S. Government Printing Office
Washington, D. C.

Brief inexpensive publications which are useful to parents include:

"The Care of Your Child's Teeth"
"The Child with Cerebral Palsy"
"The Child with Cleft Palate"
"The Child with Epilepsy"
"The Mentally Retarded Child at Home"
"The Mongoloid Baby"
"Your Preschool Child's Eyes."

CHAPTER II

INSTRUCTIONAL AIDS



VIDEO-TAPE EQUIPMENT

Portable video-tape equipment may be used effectively for observation and documentation of class activities. The video package should include a portable camera with zoom lens; a video recorder; a lavalier microphone; and, an AC battery charger/adapter. Along with the basic unit, 11-inch and 22-inch television monitors also should be available for small and large group play-back viewing. Thirty-minute video-tapes should be purchased in a sufficient quantity to allow some tapes to be recorded and kept permanently, while others are used over and over again. A tripod on a movable dolly would complete the television equipment package.

Young handicapped children quickly become accustomed to the presence of the photographer and camera equipment. After showing an initial interest in the television equipment, the children will be oblivious to it (evidenced in the ARIN M-A-P Project, 1972-73).

The video equipment can be used to record general teaching, language development, and motor skill development activities. In addition to providing an on-going record of each child's progress, teacher evaluation can be effected. A self-evaluation form, designed for use by the teacher being recorded (see Appendix J), and the play-back of teaching sessions should be treated confidentially. Once the teacher has viewed the tape and completed the self-evaluation, the recording should be erased; only with the teacher's permission, should self-evaluative video recordings ever be kept.

Video-tapes of classroom activities also may be played back for the children. Many of the children will recognize themselves on the television screen and remember what was happening at that time.

COMMERCIALLY-PRODUCED INSTRUCTIONAL MATERIALS

Commercially-produced materials, when evaluated to determine their appropriateness prior to as well as after instruction, can often be an asset in teaching young multiply handicapped children. The following materials, designed to enhance motor, academic, and perceptual skills, were carefully evaluated by ARIN Intermediate Unit classroom teachers, while they were engaged in the instruction of young handicapped children. An evaluation form was designed to facilitate evaluation of each item, in terms of its utility in classes for young multiply handicapped children (see Appendix K).

MOTOR SKILL DEVELOPMENT

Materials which may be used to enhance GROSS MOTOR SKILLS:

MATERIAL	SKILL(S) DEVELOPED	VENDOR *	COST**	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
Play Tunnel	Crawling	HAMMETT	$15.00	A tunnel made with fire resistant heavy duty cover, 3 yards long, 2' in diameter, folds to 2 1/2" for storage.	Evokes high interest Can be used as a part of an obstacle course	Mildly, moderately, or severely retarded Emotionally disturbed Physically handicapped Socially/culturally disadvantaged	Good
Mini-Walker	Walking	LUMEX	15.00	Small (child-size) aluminum walker.	Enables child who is developmentally ready, but afraid to walk alone, to move around classroom	Multiply handicapped Moderately or severely retarded	Good
Gym Scooter	Moving	CRANBARRY	13.50	A square board with casters which the child may sit or lie on.	Encourages use of numerous large muscles Enables physically handicapped child to move his body	Physically handicapped Exhibiting any degree of retardation Socially/culturally disadvantaged Emotionally disturbed	Good
Play Slide	Climbing Sliding Balancing	KURTZ	22.00	32" (H) X 14" (W), 12 lb. polyethylene double-walled slide.	Evokes high interest Promotes enthusiasm	Mildly, moderately, or severely retarded Emotionally disturbed Socially/culturally disadvantaged	Excellent
Roll-a-Sphere	Rolling Balancing	KURTZ	20.00	Large round hollow polyethylene 30" ball with 14" opening at top and bottom. Children may crawl into it and roll, or roll the ball itself.	Disturbs some children who are fearful of being off balance Shows particular usefulness as a device to be rolled or to have things thrown into it	Mildly retarded Speech-impaired	Fair

* See pages 161 and 162 for complete addresses of vendors. **As of Spring, 1973.

MOTOR SKILL DEVELOPMENT (cont'd.)

MATERIAL	SKILL(S) DEVELOPED	VENDOR	COST	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
Cage Ball	Rolling Balancing Body Awareness	HAMMETT	$35.80	30" cage ball with canvas cover. Double sewn seams. Bladder opening reinforced. Very sturdy. Excellent size.	Can take a great deal of punishment May be bounced, sat upon, rolled, and lain on	Exhibiting any degree of retardation Physically handicapped Emotionally disturbed Socially/culturally disadvantaged	Excellent
Frog Box	Balancing Climbing Stooping	KURTZ	10.00	22" X 24" frog-shaped toy box (9 lbs.) which was enjoyed by the children.	Used effectively as a device to crawl into Evokes high interest	Exhibiting any degree of retardation Emotionally disturbed Multiply handicapped Socially/culturally disadvantaged	Excellent
Doorway Gym Bar	Tumbling Balancing Chinning	CHILDCRAFT	10.95	Expands to fit any doorway. Locks into place at height desired. Supports over 200 lbs.	Evokes high interest Serves as a good body conditioner	Mildly or moderately retarded Emotionally disturbed Socially/culturally disadvantaged	Excellent
Cotton Jump Rope	Jumping	HAMMETT	.30	Cotton 7' rope.	Has unlimited use in motor activities Evokes moderate student interest	Mildly or moderately retarded Emotionally disturbed Socially/culturally disadvantaged	Good
Sponge Ball (large)	Throwing Catching Squeezing	DLM	1.50	Harmless, washable, colorful ball which is 6 3/8" in diameter made of durable soft foam.	Develops large and fine muscle control	Exhibiting any handicap	Excellent
Spongs Ball (small)	Throwing Catching Squeezing	DLM	.80	Harmless, washable, colorful ball which is "softball" size (4" diameter) made of durable soft foam.	Develops large and fine muscle control	Exhibiting any handicap	Excellent

MOTOR SKILL DEVELOPMENT (cont'd.)

MATERIAL	SKILL(S) DEVELOPED	VENDOR	COST	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
Utility Playground Ball (16")	Bouncing Kicking Throwing Group Interaction	HAMMETT	$ 5.10	Voit playground ball made of heavy gauge, high resiliency laminated rubber. Stippled surface improves handling. 16" size found to be ideal.	Promotes creativity Enhances bouncing and kicking skills Helps to develop eye-hand coordination	Exhibiting any handicap	Excellent
Activity Bike	Moving a Riding Toy	CHILDCRAFT	17.95	Simple riding toy with handlebar. Since it does not have pedals, it is particularly good for those children who have not as yet developed sufficient coordination to ride a tricycle.	Promotes interest and enthusiasm Encourages child to use leg muscles	Moderately or severely retarded	Excellent
Tricycle (16" front wheel)	Moving a Riding Toy Pedaling	CHILDCRAFT	22.95	Well-constructed tricycle built to withstand rough treatment with ball bearing pedal wheels, oversized tubular frame, an extra-wide double deck rear riding platform for stability. 16" front-wheel size particularly appropriate.	Promotes interest and enthusiasm Develops leg muscles	Emotionally disturbed Mildly or moderately retarded	Excellent
Moon Buggy	Moving Cooperating with Others	CHILDCRAFT	32.95	Stands 22" high, 41" diameter; seat is 12" square; frame is 1" heavy-gauge steel tubing. Non-marking casters. Accomodates up to four children; requires physical and cooperative efforts from each.	Evokes high interest Encourages coordination of play with others	Socially/culturally disadvantaged Mildly retarded Emotionally disturbed	Excellent

MOTOR SKILL DEVELOPMENT

Materials which may be used to enhance BODY AWARENESS and SELF-CARE SKILLS.

MATERIAL	SKILL(S) DEVELOPED	VENDOR	COST	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
Wall Mirror	Body Awareness Self-Image	CHILDCRAFT	$15.95	Light-weight 16" X 48" mirror which may be hung vertically or horizontally with self-adhering pads. Biaxial polyester film backed by foam makes the image clear.	Is safe and non-breakable Shows distortion-free image May be poked, scratched, slapped, etc. without causing damage	Exhibiting any handicap (with exception of visual impairment)	Excellent
Metal Mirror	Body Awareness Self-Image	HAMMETT	15.95	Metal mirror in wooden frame which stands on the floor.	Distorts image somewhat Is non-breakable Is free-standing	Exhibiting any handicap (with exception of visual impairment)	Good
We Dress for the Weather	Dressing	KURTZ (INSTRUCTO)	6.40	Set of 57 pieces; boy, girl, clothing for all kinds of weather, thermometer, weather symbols, and word cards.	Is useful during daily morning exercises Allows children to discuss the day's weather and appropriately dress felt figures	At least trainable or exhibiting any other handicapping condition	Good
Dapper Dan Dressy Bessy	Lacing Buckling Tieing Zipping Buttoning Snapping	KURTZ	10.25 ea.	Teaching soft doll with sewn-on clothing which provides opportunities to lace, buckle, tie, zip, button, and snap.	Dan is ideal for teaching boys self-help skills Bessy is ideal for teaching girls self-help skills	Mildly retarded Emotionally disturbed Physically handicapped Socially/culturally disadvantaged	Excellent
Mini-Commode Chair	Toileting	LUMEX	37.50	Child-size wooden commode chair with metal arm-rests and legs, and a plastic bucket with lid.	Needs a deflector and a tray in order to be completely useful	Severely through mildly retarded Physically handicapped Socially/culturally disadvantaged Multiply handicapped	Good

ACADEMIC SKILL DEVELOPMENT

Materials which may be used to enhance LETTER AND NUMBER READINESS SKILLS.

MATERIAL	SKILL(S) DEVELOPED	VENDOR	COST	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
Tactile Letter Blocks/Number Blocks/Board	Identifying Letters Identifying Numbers Discriminating Tactilely	CHILDCRAFT	$40.50	Large precisely-cut wooden letters and numbers which fit into hardwood blocks grooved into the exact letter shape and protrude 1/8" from the block surfaces (price includes board capital letters, set of 10 numbers); lower case letters also available.	May be used in a pre-reading and pre-arithmetic program	Mildly or moderately retarded Socially/culturally disadvantaged Visually-impaired Learning-disabled	Good
Groovy Letters: Capitals, Manuscript	Identifying Letters Writing Letters Discriminating Tactilely	IDEAL	5.50	Plastic laminated wipe-off cards with large 3" letters positioned on ruled lines. The first letter on each card is grooved with directional arrows. The second letter may be traced. Finally, the letter can be drawn freehand in the space provided.	Provides many cues for instruction Creates moderate interest in children	Mildly retarded Socially/culturally disadvantaged Learning-disabled Visually-impaired	Good
Groovy Letters: Lower Case, Manuscript	Identifying Letters Writing Letters Discriminating Tactilely	IDEAL	5.50	Plastic laminated wipe-off cards with lower case manuscript letters positioned on ruled lines. The first letter on each card is grooved with directional arrows. The second letter may be traced. Finally, the letter can be drawn freehand in the space provided.	Provides many cues for instruction Creates moderate interest in children	Mildly retarded Socially/culturally disadvantaged Learning-disabled Visually-impaired	Good
Groovy Numerals	Identifying Numbers Writing Numbers Discriminating Tactilely	IDEAL	4.00	Plastic laminated wipe-off cards with large 3" numbers positioned on ruled lines. The first number on each card is grooved with directional arrows. The second number may be traced. Finally, the number car be drawn in the space provided.	Provides many cues for instruction Creates moderate interest in children	Mildly retarded Socially/culturally disadvantaged Learning-disabled Visually-impaired	Good

ACADEMIC SKILL DEVELOPMENT (cont'd.)

MATERIAL	SKILL(S) DEVELOPED	VENDOR	COST	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
Pacemaker Arithmetic Readiness Program Part A	Increasing Quantitative Vocabulary Increasing Quantitative Concepts	FEARON	$ 38.00	Worksheets on duplicator masters plus teacher's manual for teaching vocabularly and quantitative concepts.	May be easily followed and is clearly understood Enables children to know and understand the meaning of quantitative vocabulary prior to the introduction of number concepts	Mildly or moderately retarded Speech-impaired Socially/culturally disadvantaged	Excellent
Pacemaker Arithmetic Readiness Program Part B	Identifying Number Concepts Writing Number Concepts	FEARON	55.00	Worksheets on duplicator masters plus teacher's manual for teaching number concepts from 1 to 10 plus zero.	Includes extensive review and repetition Confuses the child by including some inappropriate pictures in teaching ordinal numbers Needs more practice sheets for forming numerals	Mildly or moderately retarded Speech-impaired Socially/culturally disadvantaged	Good
Slant Board	Writing	DLM	6.00	A slanted board (19" X 15" X 5") which affords a large, correctly-angled writing surface of masonite. A ridge on the bottom of the board holds pencils and a spring clip at the top holds the paper.	May be used as an excellent aid for displaying pictures to small groups Enables child (even physically handicapped) to mark a paper with ease	Exhibiting any handicap	Excellent

ACADEMIC SKILL DEVELOPMENT

Materials which may be used to assess and enhance LANGUAGE DEVELOPMENT:

MATERIAL	SKILL(S) DEVELOPED	VENDOR	COST	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
Panasonic Cassette Tape Recorder	Discriminating among Sounds	DLM	$40.00	Tape recorder with a built-in microphone.	May be used easily by a child	Exhibiting any handicap (with exception of auditory impairment)	Excellent

ACADEMIC SKILL DEVELOPMENT (cont'd.)

MATERIAL	SKILL(S) DEVELOPED	VENDOR	COST	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
Peabody Language Development Kit Level P	Listening Participating in a Group Expressing Oneself	AGS	$153.00	An entire program of oral language and intellectual stimulation which is carefully sequenced into a series of 180 lessons with explicit directions. Kit includes stimulus cards, story posters, recordings, plastic color chips, puppets, P. Mooney Bag, P. Mooney Stick, 21 fruits and vegetables, xylophone, boy and girl manikins and vinyl clothing, disassembled manikin, and 45 magnetic geometric shapes and 22 strips.	Stimulates children tactilely and visually Stimulates thinking Enhances language development May be adapted easily to meet the needs of specific children Maintains child's interest Sparks enthusiasm	Mildly or moderately retarded Physically handicapped Speech-impaired Learning-disabled Socially/culturally disadvantaged	Excellent
Speech Mirror	Gaining Self-image Enhancing Speech	IDEAL	43.00	Nonbreakable revolving 16" X 24" aluminum-framed mirror with flannel backing. Three spring clips to secure non-flannel-backed materials.	Adds extensively to the speech program Is easily transported Stimulates language development	Exhibiting any handicap (with exception of visual impairment)	Excellent
Goldman-Lynch Sounds and Symbols Development Kit	Speaking Expressively Perceiving Auditorially Perceiving Visually	AGS	117.00	A sounds and symbols development kit which contains word cards, puppets, tapes, and stimulus cards.	Needs to be programmed for use Is durable Is speech and sound development-oriented	Exhibiting any handicap (if materials are adapted)	Excellent
Goldman-Fristoe Test of Articulation	Assessing Sound Stimulation	AGS	19.00	Consists of three subtests (sounds in words; sounds in sentences; stimulability).	Enables a speech therapist to systematically assess articulation skills of children	Exhibiting any handicap (if materials are adapted)	Good
Peabody Picture Vocabulary Test	Assessing Language Skills	AGS	17.00	Test used to assess ability (rating is based on language skills in young children).	Can be used with non-verbal children Uses "point to" response	Mildly or moderately retarded Physically handicapped Speech-impaired	Excellent

ACADEMIC SKILL DEVELOPMENT (cont'd.)

MATERIAL	SKILL(S) DEVELOPED	VENDOR	COST	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
Goldman-Fristoe-Woodcock Test of Auditory Discrimination	Assessing Sound Discrimination	AGS	$19.50	Pre-recorded tape provides for standardized presentation of speech sound discrimination test under both quiet and distracting noise conditions.	Features pointing response	Mildly retarded Speech-impaired Learning-disabled	Good
Tok-Back	Listening	DLM	4.20	"Speech Mask" molded of light-weight plastic; amplifies the voice when placed over the mouth.	Enables child to hear voice as others hear it	Exhibiting any handicap	Excellent

PERCEPTUAL SKILL DEVELOPMENT

Materials which may be used to enhance EYE-HAND COORDINATION and AUDITORY DISCRIMINATION:

MATERIAL	SKILL(S) DEVELOPED	VENDOR	COST	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
Bobo (Punching Bag)	Eye-Hand Coordination	CHILDCRAFT	$ 3.95	50" high inflatable clown of sturdy vinyl with weighted bottom.	Promotes interest and enthusiasm Excellent for improving eye-hand coordination	Mildly or moderately retarded Emotionally disturbed Socially/culturally disadvantaged	Good
Size Board	Size Discrimination	DAIGGER	13.25	Wooden puzzle with one large and one small square (with handles) which lift out easily. The squares are red; a second set is green.	Is easily handled Presents a simple concept	Severely through mildly retarded Physically handicapped Emotionally disturbed Multiply handicapped	Good
Animal Puzzle	Shape Discrimination	DAIGGER	11.90	Puzzle which consists of three wooden animal shapes (bird, rabbit, dog) with handles.	Evokes moderate interest Is more advanced than size board (see above)	Mildly or moderately retarded Physically handicapped Emotionally disturbed Multiply handicapped	Good

PERCEPTUAL SKILL DEVELOPMENT (cont'd.)

MATERIAL	SKILL(S) DEVELOPED	VENDOR	COST	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
Multivariant Sequencing Beads/Multivariant Sequencing Bead Patterns	Form Discrimination Size Discrimination Color Discrimination Categorizing Sequencing	DLM	$ 9.50	2 of each of 60 differently-characterized beads and 4, 24" plastic-tipped black laces; 28 patterns vary in difficulty.	May be used in various ways and adapted for each child's level of functioning Seems to be excessive length in some patterns	Mildly or moderately retarded Exhibiting any other handicapping condition	Excellent
Same or Different Color Cards	Color Discrimination	DLM	1.25	Set of 30 2-3/4" X 4-1/2" cards which feature pairs of 15 different items which stress color difference and likeness.	May be used in academic and perceptual-training programs Promotes interest and enthusiasm	Mildly or moderately retarded Exhibiting any other handicapping condition	Excellent
Manipulative Series	Tactile Discrimination Eye-Hand Coordination Size Discrimination	BOWMAR	31.95	A set of 8 books ("Little, Big, Bigger; How Does It Feel," etc.) which involve children in touching and moving parts in the brief stories; a teacher's manual is included.	Maintains class interest Stimulates child's learning	Exhibiting any handicap	Excellent
Sorting Box and Accessories	Color Matching Number Matching Eye-Hand Coordination	DLM	21.00	Wooden box on which one of three code strips is positioned in a slot at the rear of the box. The child sorts the group of tiles (according to color or number cues) given to him into the 10 slots below the code strip.	Teaches a basic skill Evokes high interest Is clearly understood	Mildly retarded Socially/culturally disadvantaged Moderately retarded (if task is merely to put tile in slot, being unconcerned with matching)	Excellent
Halves to Wholes	Visual Discrimination Categorization	DLM	2.00	30 horizontally-cut cards to be paired to reassemble an object; the pictures include people, animals, trees, fruits, and buildings. Cards measure 2-3/4" X 4-1/2" when assembled.	Is easily understood Evokes high interest	Mildly or moderately retarded Physically handicapped Speech-impaired Learning-disabled Socially/culturally handicapped	Excellent

RCEPTUAL SKILL DEVELOPMENT (cont'd.)

MATERIAL	SKILL(S) DEVELOPED	VENDOR	COST	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
Pegboard/ Pegboard Designs	Fine Muscle Control Color Matching and Discrimination	DLM	Pegboard $1.50 Pegs 2.75 Designs 10.50	A pegboard with 240 plastic pegs (40 of each of 6 colors) with 52 designs divided in 8 groups progressing in order of complexity.	Promotes interest and enthusiasm	Mildly retarded Physically handicapped Speech-impaired Learning-disabled Socially/culturally disadvantaged	Excellent
Feel n' Match Set	Matching Tactile Discrimination	KURTZ (LAURI)	$10.00	Set of 24 shapes of different thicknesses, textures, and lengths.	Teaches child a basic skill May be used in various ways	Exhibiting any handicap	Good
Explorations in Gross Motor Skills and Sensory Perception	Sensory Perception	D-G	28.00	Kit contains plastic blocks (with letters and numbers on them), a puppet, picture cards, and detailed lessons.	Lessons need to be adapted to be used effectively with handicapped children	Exhibiting any handicap (with adaptations)	Good
Puppets and Tape	Language Stimulation Cultural Awareness	DLM	15.00	5 11" fur puppets with a taped cassette script	Has great appeal Tape needs to be accompanied by pictures	Mildly retarded Speech-impaired Socially/culturally disadvantaged	Good

PERCEPTUAL-ACADEMIC SKILL DEVELOPMENT

Films and filmstrips which may be used to enhance ACADEMIC AND PERCEPTUAL SKILLS:

MATERIAL	SKILL(S) DEVELOPED	VENDOR	COST	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
Sight and Sound Discovery Trips	Visual and Auditory Discrimination Concept Formation	EYEGATE	$96.00 (set)	A set of eight filmstrips regarding sounds in the woods, on the farm, at the zoo, by the sea, at the circus, at home, around town, and in the city, with cassette tapes. (May be purchased separately.)	Provides a good introduction to a field trip	Mildly or moderately retarded Physically handicapped Speech-impaired Socially/culturally disadvantaged	Good

PERCEPTUAL-ACADEMIC SKILL DEVELOPMENT (cont'd.)

MATERIAL	SKILL(S) DEVELOPED	VENDOR	COST	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
Starting to Read Series	Visual and Auditory Discrimination Concept Formation	ACI	$1,200.00	A set of 12 brief color films available in 8 or 16 mm.	Possess good pacing, excellent photography, "catchy" songs May be used in a unit to teach a specific concept	Moderately or mildly retarded Physically handicapped Speech-impaired Socially/culturally disadvantaged	Good
"County Fair"				Children participate in all the activities of a typical fair (7 min.).			
"Ducks"				Big and little ducks waddle about a duck farm, eating, drinking, swimming, quacking (7 min.).			
"In, Out, Up, Down, Under, Over, Upside Down"				A family and their pets demonstrate directional movements in their playhouse (8 min.).			
"One Turkey, Two Turkey"				A counting film with turkeys popping in and out of crates to introduce numbers 1-10 (6 min.).			
"Picnic"				A family goes on a picnic and cooks a meal over a fire (7 min.).			
"Playground"				Slides, swings, and games occupy many children at a playgound (7 min.)			
"Rain"				Rain is shown in the city and country (6 min.).			
"Safety as We Play"				Children on their way to play demonstrate safety rules (7 min.).			
"Sun"				A film about the sun and children (7 min.).			
"A Wheel Is Round"				Different kinds of wheels which children see are shown (8 min.).			
"Wind"				The power of the wind is shown with kites, sailboats, and pinwheels (8 min.).			

PERCEPTUAL-ACADEMIC SKILL DEVELOPMENT (cont'd.)

MATERIAL	SKILL(S) DEVELOPED	VENDOR	COST	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
"Z is for Zoo"				Scenes at the zoo introduce letters and words (9 min.).			

MOTOR-ACADEMIC-PERCEPTUAL SKILL DEVELOPMENT

Records which may be used to enhance MOTOR ACADEMIC AND PERCEPTUAL SKILLS:

MATERIAL	SKILL(S) DEVELOPED	VENDOR	COST	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
Action Songs and Rounds	Auditory Discrimination Fine Motor Control	CHILDCRAFT (EDUC ACT)	$ 5.95	Songs which can be performed in limited space without equipment.	Recording in its entirety is appropriate Parts of it are very catchy	Moderately or mildly retarded Speech-impaired Learning-disabled Emotionally disturbed Socially/culturally disadvantaged	Excellent
And One and Two	Auditory Discrimination Fine Motor Control	CHILDCRAFT (FOLKWAY RECORDS)	5.95	A song and rhythm record designed for child participation in singing, clapping, and humming.	Presents songs which are enjoyable and have motions	Moderately or mildly retarded Physically handicapped Speech-impaired Socially/culturally disadvantaged Emotionally disturbed	Excellent
Finger Games	Auditory Discrimination Fine Motor Control	CHILDCRAFT (EDUC ACT)	5.95	Rhythmic verses combined with hand motions.	Must be adapted for many handicapped children Contains delightful songs	Mildly retarded Socially/culturally disadvantaged	Good

)TOR-ACADEMIC-PERCEPTUAL SKILL DEVELOPMENT (cont'd.)

MATERIAL	SKILL(S) DEVELOPED	VENDOR	COST	DESCRIPTION	EVALUATION	APPROPRIATE FOR YOUNG CHILD WHO MAY BE:	OVERALL RATING
Fitness Fun for Everyone	Auditory Discrimination Gross Motor Skills	EDUC ACT	$12.00	Self-instructing activities set to simple melodies.	Provides exercise and fitness for all parts of the body Develops rhythm and coordination	Mildly retarded Socially/culturally disadvantaged Learning disabled	Good
Getting to Know Myself	Body Awareness Laterality	EDUC ACT	5.95	An introduction to learning about himself for the young child (identification of body parts; movement of body; feelings and moods).	Is easily understood Maintains student interest Encourages body awareness Is a good length	Mildly retarded Socially/culturally disadvantaged Learning disabled	Excellent
Learning Basic Skills Through Music-Vol. I	Number Concepts Color Concepts Alphabet Skills Body Awareness	EDUC ACT (by Hap Palmer)	5.95	Basic skills are presented in a rhythmic teaching program.	Tunes are clever and instructional, but move slowly enough to encourage student participation	Mildly retarded Socially/culturally disadvantaged Learning disabled	Excellent
Learning Basic Skills Through Music-Vol. II	Number Skills Color Concepts Reading Readiness	EDUC ACT (by Hap Palmer)	5.95	Songs identify colors, body parts, forms, words beginning with same consonant; and, games for listening and following directions.	Provides an enjoyable approach to learning basic skills	Mildly retarded Socially/culturally disadvantaged Learning disabled	Good
Patriotic and Morning Time Songs	Auditory Discrimination	EDUC ACT	5.95	Patriotic, folk, and original songs providing opportunities for individual and group responses.	Encourages marching Serves as a good start to the school day "Morning Time March" "What Did You Eat" are particularly good	Mildly retarded Socially/culturally disadvantaged Learning disabled	Good
Train Sounds	Auditory Discrimination	HEID	Courtesy of PA Railroad	Train sounds recorded on actual moving trains; includes whistles and train calls.	Evokes high interest Sounds of trains are clear	Exhibiting any handicap (with exception of auditory impairment)	Good

Vendors

ACI	ACI Films, Inc. 35 West 45th Street New York, New York 10036
AGS	American Guidance Service, Inc. Publishers' Building Circle Pines, Minnesota 55014
BOWMAR	Bowmar Publishing Corporation 622 Rodier Drive Glendale, California 91201
CHILDCRAFT	Childcraft Education Corporation P. O. Box 94 Bayonne, New Jersey 07002 (distributor of Educational Activities; Folkway Records)
CRANBARRY	Cranbarry P. O. Box 488 2 Lincoln Avenue Marblehead, Massachusetts 01945
DAIGGER	A. Daigger and Company Educational Teaching Aids Division 159 West Kinzie Street Chicago, Illinois 60610
D-G	Denoyer-Geppert Company 5235 Ravenswood Avenue Chicago, Illinois 60640
DLM	Developmental Learning Materials 3505 North Ashland Avenue Chicago, Illinois 60657

EDUC ACT	Educational Activities, Inc. P. O. Box 392 Freeport, New York 11520
EYEGATE	Eyegate House 146-01 Archer Avenue Jamaica, New York 11435
FEARON	Fearon Publishers 2165 Park Boulevard Palo Alto, California 94306
HAMMETT	J. L. Hammett Company Hammett Place Braintree, Massachusetts 02184
HEID	George Heid Productions (no longer in business) Penn Sheraton Hotel Pittsburgh, Pennsylvania 15230
IDEAL	Ideal School Supply Company 11000 S. Lavergne Avenue Oak Lawn, Illinois 60453
KURTZ	Kurtz Brothers School Supplies and Equipment 507 Liberty Avenue Pittsburgh, Pennsylvania 15222 (distributor of Lauri and Instructo Materials)
LUMEX	Lumex Company Bay Shore, New York 11706

FREE (OR INEXPENSIVE) MATERIALS USED EFFECTIVELY WITH YOUNG MULTIPLY HANDICAPPED CHILDREN

MOTOR

Gross Motor Skills

1. Cardboard Boxes
2. Plastic Hands and Feet
3. Masking Tape Lines on Floor
4. Discarded Rubber Tires

Fine Motor Skills

1. Large Cardboard Blocks
2. Play Dough
3. Sponges

Self-Care Skills

1. Dress-Up Clothes (Discarded adult clothes)

ACADEMIC

General Readiness Skills

1. Concrete Objects in the Room
2. Chairs with Only One Open Side (Can be pushed up against the wall to keep child enclosed)
3. Teacher-Written Flannel-Board Stories

Language Development

1. Hand-Made Puppets

Number and Letter Readiness

1. Cardboard Letters and Numbers
2. Masking Tape Letters and Numbers

PERCEPTUAL

Eye-Hand Coordination

1. Teacher-Made Puzzles
2. Bean Bags
3. Plastic Bottle/Screw or Snap Lids

Auditory crimination Skills

1. Discarded "Legg's Panty-Hose" Containers Filled with Materials for Auditory Discrimination

Tactile Discrimination Skills

1. "Feely" Bag (Paper bag in which concrete objects are placed)
2. Sticky Finger Foods

FREE TEACHING AIDS

The free catalogs, supplied by publishing companies which produce materials specifically designed for the early childhood education of the handicapped, may also provide the teacher with ideas for systematic instruction and teacher-made materials.

AMERICAN GUIDANCE SERVICE, INC.
Publishers' Building
Circle Pines, Minnesota 55014

Request catalog of tests, educational materials, and information on the Peabody Language Development Kits.

BOWMAR PUBLISHING CORPORATION
622 Rodier Drive
Glendale, California 91201

Request current catalog for early childhood education.

CHILDCRAFT EDUCATION CORPORATION
964 Third Avenue
New York, New York 10022

Request catalog, The Growing Years.

CREATIVE PLAYTHINGS
Princeton, New Jersey 08540

Request catalog for preschool and early childhood education.

DEVELOPMENTAL LEARNING MATERIALS (DLM)
7440 North Ashland Avenue
Chicago, Illinois 60657

Request current catalog.

J. L. HAMMETT COMPANY
Hammett Place
Braintree, Massachusetts 02184

Request early childhood, special education, and Learning Through Movement catalogs.

IDEAL SCHOOL SUPPLY COMPANY
11000 South Lavergne Avenue
Oak Lawn, Illinois 60543

Request catalog, Ideal for Special Education.

KURTZ BROTHERS SCHOOL SUPPLIES AND EQUIPMENT
507 Liberty Avenue
Pittsburgh, Pennsylvania 15222

Request current catalog.

MAFEX ASSOCIATES, INC.
Box 519, 111 Barron Avenue
Johnstown, Pennsylvania 15907

Request current catalog of materials for the exceptional child.

NEW YORK TIMES TEACHING RESOURCES
100 Boyleston Street
Boston, Massachusetts 02116

Request catalog, Developmental Programs for Early Learning.

J. A. PRESTON CORPORATION
71 Fifth Avenue
New York, New York 10003

Request catalog, Materials for Exceptional Children and Youth.

FILMS, FILMSTRIPS, AND SLIDES

While many commercially-available films and filmstrips move too quickly to be used effectively with young multiply handicapped children, some are paced more slowly. At various times throughout the year, films, selected from the film collection of an Instructional Materials Center, should be shown. Filmstrips have been found to be particularly effective, because the teacher can control the presentation, spending as much time as necessary on each frame.

When slides taken of the children are presented, the children show great delight in naming those pictured. Even many non-verbal children attend well to pictures of themselves and others in the classroom (evidenced in the ARIN M-A-P Project, 1972-73).

Films, filmstrips, or slides with the simplest composition should be selected. Strong central figures are eye-catching and easy to identify.

The children will probably demand to see the production (be it film, filmstrip, or slides) again and again. (E.g., During the ARIN program, one filmstrip on elephants was repeated seven times and maintained continued interest.) During each subsequent showing, they will notice something different and become more familiar with concepts being presented. Remember: repetition enhances learning in young multiply handicapped children.

CHAPTER 12

ANNOTATED BIBLIOGRAPHY OF MATERIALS FOR TEACHER REFERENCE

Books and films should be available for teacher reference in a professional library. The following books and films have been examined and evaluated by ARIN Intermediate Unit's teachers and staff.

ASSESSMENT TECHNIQUES

Haeussermann, E. Developmental Potential of Preschool Children: An Evaluation of Intellectual, Sensory and Emotional Functioning. New York: Grune & Stratton, 1958. ($12.00)

A detailed common-sense approach for the educational evaluation of handicapped children who are between two and six years of age is provided.

Jedrysek, E., Klapper, Z., Pope, L., & Wortis, J. Psychoeducational Evaluation of the Preschool Child: A Manual Utilizing the Haeussermann Approach. New York: Grune & Stratton, 1972.

This detailed guide can be used by a classroom teacher for evaluating the educational potential of preschool children. When used to evaluate handicapped children, it is necessary that the accompanying text (Haeussermann, E. Developmental Potential of Preschool Children: An Evaluation of Intellectual, Sensory and Emotional Functioning. New York: Grune & Stratton, 1958.) be used with it.

Palmer, J. The Psychological Assessment of Children. New York: John Wiley, 1970. ($13.50)

This highly detailed book could be an asset to any clinician who is engaged in evaluating children. A particularly helpful chapter is included on "The Analysis of Perceptual-Motor and Cognitive Development".

Rosner, J., Richman, V., & Scott, R. The Identification of Children with Perceptual-Motor Dysfunction Among Emotionally Disturbed, Educable Mentally Retarded and Normal Children in the Pittsburgh Public Schools and The Manual for the Rosner Perceptual Survey and the Rosner-Richman Perceptual Survey (RRPS). Pittsburgh: University of Pittsburgh, Learning Research and Development Center, 1969.

The RRPS appears to be a suitable instrument for assessing the perceptual skill development of young children who are at least educable and not physically handicapped. It measures selected gross motor skills, auditory organization abilities, auditory-visual skills, body awareness, and fine motor copying skills. It is too sophisticated an instrument, however, for the profoundly or modera ely retarded preschool child.

Russell, E., Neuringer, C., & Goldstein, G. Assessment of Brain Damage. New York: John Wiley, 1970. ($14.00)

This book explains the use of the Halstead Battery to assess brain damage in children.

Wilson, J., & Robeck, M. Kindergarten Evaluation of Learning Potential: A Curricular Approach to Evaluation. St. Louis: McGraw-Hill, 1965.

A detailed discussion of and guideline for teaching the KELP items are presented.

CHILD DEVELOPMENT/EXCEPTIONAL CHILDREN

Biehler, R. Psychology Applied to Teaching. New York: Houghton Mifflin, 1971.

This basic educational psychology text contains a highly detailed chapter on the teaching of exceptional children.

Cruickshank, W. (Ed.) Psychology of Exceptional Children and Youth. (3rd ed.) Englewood Cliffs: Prentice Hall, 1971.

This book provides an excellent well-written collection of detailed information on the psychology of various exceptionalities in children. Individual chapters discuss children with physical handicaps, speech defects, visual impairment, brain-injury, auditory impairment, mental retardation, gifted ability, emotional disturbance and chronic medical problems; each is written by an authority in the given field.

Koch, R. & Dobson, J. (Eds.) The Mentally Retarded Child and His Family. New York: Brunner/Mazel, 1971. ($15.00)

This encyclopedic volume on mental retardation describes in detail the origins of intelligence, the meaning of mental retardation, the biological factors contributing to mental retardation, and the educational training of the mentally retarded. An exceptional glossary is also included.

Landreth, C. Early Childhood: Behavior and Learning. (2nd ed.) New York: Alfred A. Knopf, 1967.

The early stages of development are chronologically and topically discussed in this clearly-written basic text.

O'Connell, D., Sorenson, R., & Brash, C. Research Relating to Children: Bulletin 29. Urbana, Illinois: ERIC Clearinghouse on Early Childhood Education, 1972. ($ 1.50)

This monograph contains a series of reports of research in progress or recently completed research. One section, entitled "Special Groups of Children," contains summaries of current research on various handicapping conditions in young children.

Sarason, I. Abnormal Psychology: The Problem of Maladaptive Behavior. New York: Appleton-Century-Crofts, 1972.

This basic abnormal psychology text contains a well-developed chapter on mental retardation and an informative presentation on the major personality disorders of childhood.

CURRICULUM GUIDES

Bernbaum, M. (Ed.) Curriculum Guides at the Kindergarten and Preschool Levels: An Abstract Bibliography. Urbana, Illinois: ERIC Clearinghouse on Early Childhood Education, 1971. (Available from the College of Education Curriculum Laboratory, University of Illinois, 1210 W. Springfield Avenue, Urbana, Illinois 61801.)

This 36-page document contains detailed synopses of available curriculum guides for young children. Although the information in the discussed guides is specifically geared to normal children, the basic information included within them could be helpful to teachers of young multiply handicapped children.

Connor, F. & Talbot, M. (Eds.) An Experimental Curriculum for Young Mentally Retarded Children. New York: Teachers College, Columbia University, 1964.

A detailed description of the development of a special education program for preschool EMR children and a presentation of the actual experimental curriculum are included. (Emotionally disturbed, physically and otherwise handicapped, children were eliminated from the study. All children were within a year of one another in chronological age.)

Garman, C. (Ed.) Pennsylvania Kindergarten Guide. Harrisburg: Division of Early Childhood Education, Pennsylvania Department of Education, 1969.

This 151-page guide lists ideas, resources, materials, procedures, experiences, and evaluative criteria for a kindergarten program. Several of the ideas for programming may be adapted for the early childhood education of the handicapped.

Garman, C. (Ed.) The Unit Approach for Kindergarten; Primary Grades. Harrisburg: Division of Early Childhood Education, Bureau of General and Academic Education, 1972.

Approaches to be used in developing instructional units for young children are suggested in this brief pamphlet.

_____. Initial COMPET Document: Commonwealth Plan for Education and Training of Mentally Retarded Children. Harrisburg: Pennsylvania Departments of Education and Public Welfare, 1972.

This detailed guide includes specific behavioral objectives and techniques of instruction for enhancing the basic skills (gross motor, self-care, etc.) of profoundly, severely, moderately, and mildly retarded children.

_____. Kindergarten Program. Pittsburgh, Pennsylvania: Department of Curriculum and Instruction, Pittsburgh Public Schools, 1972.

Many of the learning activities suggested in this kindergarten curriculum can be adapted for use with young handicapped children. The activities are attractively packaged in a large box on individual cards and color-coded, according to skills to be developed.

McCarthy, J. (Ed.) A Guide to Curriculum Materials for Exceptional Children. Detroit: Central Michigan University. 1966.

This guide contains a detailed listing of available materials, prices, and places from which to order them. The items seem to be somewhat outdated and include little of great use for the early childhood education of the handicapped.

Molloy, J. Trainable Children: Curriculum and Procedures. New York: John Day, 1963.

This detailed curriculum, based on the experiences of the Orchard School in Skokie, Illinois, includes checklists for parent and teacher on-going evaluations of the child.

Sanford, A. A Manual for Curriculum and Instructional Planning and Learning Accomplishment Profile. Unpublished Manuscript. Prepared as a part of the HCEEAA Preschool Project for Developmentally Handicapped Children, Chapel Hill City Schools, Chapel Hill, North Carolina, 1972.

An excellent collection of activities and an evaluative device which are very appropriate for use with young multiply handicapped children are provided.

Shick, R. & Kelsey. D. (Eds.) Curriculum and Resource Guide for Early Childhood Handicap Program: Field Test Edition. Mansfield, Pennsylvania: Mansfield State College, 1972.

This guide describes various foundation concepts, curriculum materials, and selected resources appropriate for the early childhood education of the handicapped.

EARLY CHILDHOOD EDUCATION

Hockman, T. & Darner, D. Special Education Preschool Project. Colorado Springs, Colorado: Colorado Springs Public Schools, 1971.

A project which involved early identification of under-developed or abnormal behavior characteristics in the preschool-aged child and the initiation of an educational treatment plan is reported. The report includes techniques of evaluation and various activities which can be used with young handicapped children.

Lewis, A. Preschool Breakthrough: What Works in Early Childhood Education. Washington, D. C.: National School Public Relations Association, 1970.

Brief synopses of various programs which have been in operation throughout the country are presented.

Nottingham, M. & Hensell, K. Implementation Guidelines for Early Childhood Education. Norwalk: Unified School District, 1973. ($ 7.50)

This set of guidelines to be used in developing programs in early childhood education is disappointing and over-priced. Techniques for assessing needs, developing a district timeline, developing objectives, arranging a financial plan, developing parent and teacher in-service programs, etc., are discussed.

INSTRUCTIONAL TECHNIQUES (BOOKS)

Bensberg. G. (Ed.) Teaching the Mentally Retarded: A Handbook for Ward Personnel. Atlanta, Georgia: Southern Regional Education Board, 1965. ($ 3.00)

This excellent how-to-do-it book is highly relevant for classroom use. Section I describes various types of retardation, pointing out appropriate teaching techniques which may be used. Section 2 demonstrates the use of behavior modification approaches through detailed lesson plans. The Appendices include a clear and easily understood glossary.

Clarizio, H., & McCoy, G. Behavior Disorders in School-Aged Children. Scranton: Chandler, 1970.

While providing an introduction to behavior disorders in children, this book gives some practical guidelines for coping with specific problems.

Gardner, W. Behavior Modification in Mental Retardation. Chicago: Aldine-Atherton, 1971. ($11.75)

This book presents a set of assumptions and related behavior principles concerned with the development and modification of behavioral characteristics in mild, moderate, severe, or profound retardates. Although the theoretical information is presented in a clear fashion, the case studies which are included and the specific examples used involve adolescents or young adults.

Gronlund, N. Stating Behavioral Objectives for Classroom Instruction. New York: Macmillan, 1970.

This brief, but practical guide, could assist the teacher in the preparation of instructional objectives.

Hewett, F. The Emotionally Disturbed Child in the Classroom. Boston: Allyn & Bacon, 1968. ($10.25)

Techniques of assessing, teaching, and arranging a classroom for emotionally disturbed children are described (in sufficient detail for easy replication) and supported with findings from research.

Kolburne, L. Effective Education for the Mentally Retarded Child. New York: Vantage Press, 1965.

An enthusiastic account of the author's actual experiences with mentally retarded children, and a presentation of appropriate procedures for teaching trainable and educable children are included.

Kozloff, M. Reaching the Autistic Child: A Parent-Teacher Program. Champaign, Illinois: Research Press, 1973. ($ 3.95)

A detailed positive program for training parents of autistic children (in methods which have proved to be successful in reducing bizarre and disruptive behavior in autistic children and in teaching children to speak, play, and perform social tasks) is presented. Four case studies provide in-depth coverage of the mechanics and philosophy of the program.

Mager, R. Preparing Instructional Objectives. Belmont, California: Fearon, 1962, ($ 2.00)

This excellent easily-read booklet teaches the teacher how to write appropriate instructional objectives.

National Special Media Institutes. Instructional Development Institute: ABCD's of Objectives. Ann Arbor, Michigan: Michigan State University, 1971.

An interesting easily understood approach to writing objectives is presented in this self-instructional teaching package.

Peter, L. Prescriptive Teaching. New York: McGraw-Hill, 1965. ($ 5.95)

A detailed discussion of each phase of prescriptive teaching which follows a sequence of 1) describing symptoms, 2) investigating etiology, 3) performing diagnosis, 4) making a prognosis, 5) prescribing treatment, 6) implementation, 7) follow-up, is presented.

Stephens, T. Directive Teaching of Children with Learning and Behavioral Handicaps. Columbus, Ohio: Charles E. Merrill, 1970. ($ 2.95)

This easily-read text for teachers who instruct children with educational and behavioral limitations includes detailed techniques for gathering descriptive information, using the results of the information to provide academic and social instruction, and for evaluating instruction. Behavior modification procedures are presented throughout.

Vargas, J. Writing Worthwhile Behavioral Objectives. New York: Harper & Row, 1972.

This concise self-instructional book teaches the writing of instructional objectives in such a way that it increases the likelihood of their being attained easily by the child.

INSTRUCTIONAL TECHNIQUES (FILMS)

"Teaching the Mentally Retarded—a Positive Approach," S. W. Texas Educational Television Council, University of Texas, 1967. (25 min.)

The use of behavior modification techniques to teach profoundly retarded children to care for themselves is demonstrated in this excellent black-and-white film. (Available from the Learning Resources Center, Indiana University of Pennsylvania, Indiana, Pennsylvania.) An accompanying handbook [Teaching the Mentally Retarded, Gerald J. Bensburg, (Ed.)] is available from the South Regional Educational Board, 130 South Sixth Street, Atlanta, Georgia 30313.

LANGUAGE DEVELOPMENT

Buddenhagen, B. Establishing Vocal Verbalizations in Mute Mongoloid Children. Champaign, Illinois: Research Press, 1971. ($ 6.75)

Techniques of instruction which were highly successful with mute Down's syndrome children are described in detail.

Chamberlain, N., Hooker, O., & Wagner, W. A Speech Readiness Guide for Parents of Severely Retarded Children. Rochester, New York: Naomi H. Chamberlain, 1956.

This readable guide for teachers and parents contains detailed lessons to assist children in acquiring oral speech.

Gray, B., & Ryan, B. A Language Program for the Nonlanguage Child. Champaign, Illinois: Research Press, 1973. ($ 5.95)

This book developed for speech and language clinicians is designed to be used as an aid in teaching children to use syntax appropriately. Detailed information is also provided on techniques of training and using teacher aides in a speech program.

Whitehurst, G., Novak, G., & Zorn, G. "Delayed Speech Studied in the Home." Developmental Psychology, 1972, 7 (2), 169-177.

A study in which the mother of a 40-month old, speech-retarded child was instructed to manipulate level of conversation and level of imitative prompts is presented in this article. Approaches which can be used by parents of nonverbal children are discussed.

PERCEPTUAL-MOTOR SKILL DEVELOPMENT (BOOKS)

Arena, J. (Ed.) Teaching Through Sensory-Motor Experiences. San Rafael, California: Academic Therapy Publications, 1969. ($ 4.75)

Specific detailed techniques for instruction in hand-eye coordination, laterality and directionality, body awareness, tactile-kinesthetic skills, visual perception, and discrimination abilities are included.

Brake, R. Developing Prereading Skills. New York: Holt, Rinehart, & Winston, 1972. ($27.96)

240 lessons to enhance auditory discrimination, auditory memory, expressive language, fine motor skills, gross motor skills, tactile discrimination, visual discrimination, etc., are presented in a plastic box on individual cards. They may be adapted easily to meet the needs of specific children.

Braley, W. Konicki, G., & Leedy, C. Daily Sensorimotor Training Activities: A Handbook for Teachers and Parents of Pre-School Children. Mountain View, California: Peek, 1968. ($ 4.95)

An excellent variety of sensorimotor experiences to help young children over-come deficits is presented. An emphasis is placed upon instruction in "educating the body" prior to asking the child to achieve in academic work.

Carlson, B., & Ginglend, D. Play Activities for the Retarded Child. New York: Abingdon Press, 1961. ($ 4.00)

A delightful compilation of stories and activites, many of which are most appropriate for use in early education classes.

Cratty, B. Developmental Games for Physically Handicapped Children. Palo Alto, California: Peek, 1969. ($ 1.50)

A well-developed series of games, designed to provide social and physical stimulation for handicapped children, are described. The section on "Sensory Motor Stories" is especially appropriate for young and/or severely handicapped children. Several activities are included for children who are confined to wheel chairs.

Cratty, B. Developmental Sequences of Perceptual Motor Tasks: Movement Activities for Neurologically Handicapped and Retarded Children and Youth. Freeport, New York: Educational Activities, 1967. ($ 2.95)

This book contains an excellent series of suggested activities, derived from research and experience with handicapped children. The teacher is provided with illustrated information on how to teach intellectually and neurologically handicapped children basic body awareness and movement skills.

Cratty, B., & Martin, M. Perceptual-Motor Efficiency in Children: The Measurement and Improvement of Movement Attributes. Philadelphia: Lea & Febiger, 1969.

A review of the relationship of body movement to learning and intelligence and a detailed discussion of the principles and procedures of a perceptual-motor test are presented. Cratty's excellent, easily administered gross-motor test is included in an appendix.

Dorward, B. Teaching Aids and Toys for Handicapped Children. Arlington, Virginia: Council for Exceptional Children, 1960. ($ 1.75)

A brief booklet which describes the construction (exact measurements) and use of teaching aids and toys for young handicapped children. The items discussed are specifically designed to enhance perceptual-motor skills.

Frankel, M., Happ, F., & Smith, M. Functional Teaching of the Mentally Retarded. Springfield, Illinois: Charles C. Thomas, 1966.

A program of study for retarded children that concentrates on abilities rather than disabilities and is directed toward enabling the child to function within a wide scope of behaviors is presented. Many of the cited teaching practices have some connection with the work of Roy McGlone at Laradon Hall. Detailed exercises for motor training, perceptual training, and perceptual-motor integration are included.

Garman, C. (Ed.) Year-Round Sensory Activities. Harrisburg: Pennsylvania Department of Education, 1972.

Sensory activities (experiences which the child may have through seeing, feeling, hearing, smelling, and tasting) which appeal to young children are arranged by months. Although designed for the kindergarten-primary grades, the suggested activities have good applicability in classes for multiply handicapped children.

Goodfriend, R. Power in Perception for the Young Child: A Comprehensive Program for the Development of Pre-reading Visual Perceptual Skills. New York: Teachers College Press, 1972. ($ 3.50)

This book and its accompanying set of ditto masters presents a program of activities which provide practice for the child in perceiving figure-ground relationships and spatial relations. Activities relate to both the concrete and abstract.

Hackett, L. Movement Exploration and Games for the Mentally Retarded. Palo Alto, California: Peek, 1970. ($ 2.95)

Units to develop body image and space awareness, self-confidence, visual focusing and balance, strength, endurance, and hand-eye coordination in retarded children are discussed and presented in great detail.

Johnson, D., & Myklebust, H. Learning Disabilities: Educational Principles and Practices. New York: Grune & Stratton, 1967.

This text presents an overview and results of a clinical remediation program for children (from the Institute of Language Disorders), who had deficiencies in learning to read, learning to spell or write, and in learning arithmetic.

Valett, R. The Remediation of Learning Disabilities: A Handbook of Psychoeducational Resource Programs. Palo Alto, California: Fearon, 1967.

This easily used, loose-leaf prescriptive teaching program is composed of 53 basic resource areas, each of which contains a sample program worksheet, related program references, suggested instructional materials, relevant evaluation and diagnostic aids, and various readings.

PERCEPTUAL-MOTOR-SKILL DEVELOPMENT (FILMS)

"Aids for Teaching the Mentally Retarded," Thorne Films, 1964. (#2093 A, B, C, D) (38 min. total)
Phase A: Motor Training
Phase B: Initial Perceptual Training
Phase C: Advanced Perceptual Training
Phase D: Integrated Motor-Perceptual Training

An excellent series of short color films which demonstrates the actual use of various aids for teaching the mentally retarded. (Available from the Learning Resources Center, Indiana University of Pennsylvania Indiana, Pennsylvania.)

"A Definition of Learning Disabilities," Robert Anderson Associates: Canadian Broadcasting Co., 1969.

A delightful film which demonstrates the difficulties encountered by children with learning disabilities and shows appropriate teaching techniques.

"Experiencing Learning Disabilities," McGraw-Hill: Robert Anderson Associates, 1969.

A black and white film (with Dr. Sam Rabinowitz) which demonstrates the lack of self-confidence in children with learning disabilities. Background noise and sound interference limit the usefulness of the film.

MISCELLANEOUS

Alvin, J. Music for the Handicapped Child. London: Oxford University Press, 1965.

A devoted musician, the author discusses the value of music instruction for the intellectually, emotionally, physically, and/or socially handicapped child.

Baird, H. The Child with Convulsions: A Guide for Parents, Teachers, Counselors, and Medical Personnel. New York: Grune & Stratton, 1972.

This practical, complete discussion of seizures in children is written by a pediatric neurologist. It gives intelligible, clear, reassuring answers to the many questions asked by teachers, counselors, and medical personnel. The general nature of seizures, treatment procedures, and the long range future of a child with convulsions are also explained.

Buist, C., & Schulman, J. Toys and Games for Educationally Handicapped Children. Springfield: Charles C. Thomas, 1959. ($ 9.50)

Toys to enhance the perception, retention, conceptualization, and expression of children who exhibit various kinds of handicapping conditions are arranged in an ascending order of difficulty and discussed briefly. The age of the child who could profit from each item is listed; teachers and parents should be sure to consider the child's mental age in adapting the suggestions.

_____. Free and Inexpensive Materials. (16th ed.) Nashville: Division of Surveys and Field Services, George Peabody College for Teachers, 1972. ($ 3.00)

Alphabetically arranged according to subject, various learning materials (maps, charts, filmstrips, pamphlets) are described in the book.

Hunt, N. The World of Nigel Hunt: The Diary of a Mongoloid Youth. New York: Garrett, 1967. ($ 3.00)

A delightful, spontaneous autobiographical book written by a child with Down's syndrome. This manifestation of the possible potential of a retarded child is recommended reading for parents, educators, and society in general.

Nordoff, P., & Robbins, C. Therapy in Music for Handicapped Children. New York: St. Martin's Press, 1971. ($ 6.50)

The manner in which music was used in therapy at the Devereaux Schools and in the Philadelphia City Schools is reported. An interesting account, but the approaches presented would require extensive adaptation for use in a class of young multiply handicapped children.

Schattner, R. Creative Dramatics for Handicapped Children. New York: John Day, 1967.

Taking the view that "every handicapped child is in some way alienated from his environment," the author presents a series of plays and musical reviews for classroom presentation in order to enhance the strengths of each child. Even a wheelchair dance is included for those children who are confined to wheelchairs. Although the listed dialogues are too advanced for early childhood education, the activities could be adapted to meet the needs of any age group.

APPENDICES

APPENDIX A

MOTOR-ACADEMIC-PERCEPTUAL (M-A-P) SKILL DEVELOPMENT CHECKLIST

(a part of Project # 48-03016-32-500)

1972-73

M-A-P Project
ARIN Intermediate Unit
Court House
Indiana, Pennsylvania 15701

Funded by

Department of Health Education and Welfare
Office of Education
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INTRODUCTION

The Motor-Academic-Perceptual (M-A-P) Skill Development Checklist* is designed to provide the teacher of multiply handicapped young children with a behavior-oriented evaluation of the child's existing motor, academic, and perceptual skills. Through the frequent use of this single measure, appropriate learning objectives can be established for each individual child.

The checklist may be easily completed through teacher observation of the child as he/she is involved in classroom activities. Since the facets of each skill are arranged hierarchically, the chart can be used to establish appropriate subsequent learning objectives for the child.

For further information on the M-A-P checklist and the manner in which it is and can be used, please contact:

Dr. Donna K. Smith
M-A-P Project Director
ARIN Intermediate Unit #28
Court House
Indiana, Pennsylvania 15701

* Compiled by D. K. Smith, 1972; Revised, 1973.

ARIN INTERMEDIATE UNIT #28
SKILL DEVELOPMENT CHECKLIST
M-A-P PROJECT

NAME _____ AGE _____ (years-months) CENTER _____

DATE _____ EVALUATED BY _____

Directions: Mark one (1) space with a red "X" for each category to describe the child's current level of behavior. Write in any specific behaviors of interest.

Example:

	1	2	3	4	5
1. RAISING HEAD		X			
2. ROLLING BODY	X				

I. MOTOR SKILLS
A. GROSS MOTOR SKILLS

	1	2	3	4	5
1. RAISING HEAD	Shows no ability	Tries to turn head	Turns head in response to a sound while lying down	Raises head without support (while lying down)	Holds head erect while sitting
2. ROLLING BODY	Shows no ability	Rolls from stomach to side	Rolls from stomach to back	Rolls from back to stomach	Rolls body easily
3. SITTING	Shows no ability	Sits with support	Sits without support	Achieves a sitting position independently	Maintains a sitting position without support

	1	2	3	4	5
4. CRAWLING	Shows no ability	Lifts chest	Lifts chest and stomach	Moves both arms, then both legs	Crawls independently
5. STANDING	Shows no ability	Seeks objects to use as support	Pulls self up to erect position	Stands erect holding on to object without support	Stands erect without support
6. WALKING	Shows no ability	Walks when both arms are held	Walks when one arm is held	Walks around objects, holding on for support	Walks independently
7. RUNNING	Shows no ability	Tries to run, but unsuccessful	Exhibits an uncoordinated run	Runs slowly	Runs quickly
8. JUMPING	Shows no ability	Tries to jump	Jumps with both feet but awkwardly	Maintains balance while jumping once	Jumps more than once exhibiting sureness of movement
9. HOPPING	Shows no ability	Tries to hop	Hops in place but loses balance	Maintains balance on one foot (note preferred foot)	Maintains balance while hopping on either foot
10. WALKING ON BALANCE BEAM	Shows no ability	Takes a few steps on 4" beam with assistance	Takes a few steps on 4" beam without assistance	Walks forward easily heel to toe	Walks backward heel to toe
11. SKIPPING	Shows no ability	Tries to skip	Skips occasionally with steps interspersed (no rhythm, but concept of skip)	Skips to one side only alternating with a skip rhythmically	Skips with rhythm, alternating feet and maintaining balance

		1	2	3	4	5
12.	USING STAIRS					
	a. Ascending	Shows no ability	Goes up with assistance of person, 2 feet per riser	Goes up holding rail, 2 feet per riser	Goes up with assistance (rail, person) 1 foot per riser	Goes up without assistance, 1 foot per riser
	b. Descending	Shows no ability	Goes down with assistance of person, 2 feet per riser	Goes down holding rail, 2 feet per riser	Goes down with assistance (rail, person), 1 foot per riser	Goes down without assistance, 1 foot per riser
13.	PLAYING BALL					
	a. Throwing ball	Shows no ability	Holds on to ball	Releases ball	Releases ball with direction	Moves and throws
	b. Catching ball	Shows no ability	Holds on to ball	Stands still, hands ready for bounced ball	Moves so that hands can reach for bounced ball	Catches ball on the fly
14.	RIDING TRICYCLE OR TOY CARS	Shows no ability	Watches in motion	Pushes	Gets on	Gets on and moves

B. MANIPULATIVE SKILLS (EYE-HAND COORDINATION)

	1	2	3	4	5
1. MOVING HANDS	Holds both hands tightly fisted	Moves hands randomly	Moves hands together in unison	Leaves hands predominantly open	Plays pat-a-cake
2. MOVING FINGERS	Shows no finger movements	Extends fingers	Plays with own fingers	Scratches with fingers	Manipulates toy with fingers
3. GRASPING	Shows no ability to grasp	Squeezes items placed in hand	Releases objects from grasp	Transfers objects from hand to hand	Uses fingers in a pincer movement to grasp
4. SHOWING HAND PREFERENCE	Shows no hand preference	Uses one hand better than other (note hand preference	Tries to name preferred hand (e.g., left, right), not always correctly	Names preferred hand correctly (note hand preference)	Differentiates between left and right in situations other than handedness (e.g., "turn to your right")
5. MANIPULATING PAPER (e.g., folding, tearing)	Makes no attempt	Handles paper and attempts task	Folds paper but unable to match edges	Folds paper and matches edges	Folds paper into various forms
6. DRAWING	Makes no attempt	Holds implement for use	Scribbles	Connects lines, dots, etc. to make forms	Draws representations
7. COLORING	Makes no attempt	Holds implement for use	Scribbles	Places colors within approximate area of the design	Colors within the lines of the design

	1	2	3	4	5
8. CUTTING a. Teacher holding paper	Makes no attempt	Cuts randomly with 2 hands on scissors	Snips ramdomly, one hand on scissors	Cuts systematically, one hand on scissors	Follows line in cutting, one hand on scissors
b. Child holding own paper	Makes no attempt	Cuts randomly with 2 hands on scissors	Snips randomly, one hand on scissors	Cuts systematically, one hand on scissors	Follows line in cutting, one hand on scissors
9. PLAYING IN SAND	Makes no attempt	Shows interest at a distance	Touches and explores	Makes a simple pattern	Experiments and elaborates on pattern
10. PAINTING WITH FINGERS	Makes no attempt	Shows interest at a distance	Touches and explores	Covers paper with paint exhibiting poor control	Covers paper with paint exhibiting good control
11. PAINTING WITH A BRUSH	Makes no attempt	Shows interest at a distance	Dabs paper with brush	Uses large brush to make designs on paper	Paints within lines of a picture
12. PASTING	Makes no attempt	Shows interest from a distance	Spreads paste randomly	Spreads paste and turns paper over to stick	Pastes on specific area
13. BUILDING WITH BLOCKS	Makes no attempt	Handles blocks	Stacks two blocks	Stacks more than two blocks	Makes dramatic representation (e.g., house)

	1	2	3	4	5
14. PUTTING PUZZLES TOGETHER	Makes no attempt	Shows interest	Completes one-piece puzzles	Completes two piece puzzles	Completes puzzle with three or more pieces
15. STRINGING BEADS	Makes no attempt	Strings 1 large bead on string with assistance	Strings at least 2 beads on string without assistance	Strings at least 3 small beads on string	Strings beads on string to make pattern
16. PLAYING WITH PEGS	Makes no attempt	Inserts large peg with assistance	Inserts large pegs independently	Inserts small pegs independently	Inserts pegs to make a pattern
17. PLAYING WITH CLAY	Makes no attempt	Handles material with assistance	Handles materials, experiments with finger movements	Uses hands, fingers, and body pressures to produce shapes	Reproduces simple shapes
18. PLAYING WITH TRUCKS, CARS, TOYS	Shows no interest	Picks up and carries	Plays with	Makes it go	Engages in dramatic play
19. PLAYING MUSICAL INSTRUMENTS	Shows no interest	Explores for sound	Pounds (e.g., drum) Shakes (e.g., bells)	Strikes 2 hands together with cymbals and/or holds instrument with one and strikes with other	Imitates rhythmic movements in group situation

C. SELF-CARE SKILLS

	1	2	3	4	5
1. DRESSING a. Unbuttoning	Shows complete dependence	Shows interest in learning	Helps adult unbutton	Unbuttons with direction	Unbuttons independently
b. Buttoning	Shows complete dependence	Shows interest in learning	Helps adult button	Buttons with direction	Buttons independently
c. Snapping	Shows complete dependence	Shows interest in learning	Helps adult snap	Snaps with direction	Snaps independently
d. Zippering (1) Zipping down	Shows complete dependence	Shows interest in learning	Helps adult zip down	Zips zipper down with direction	Zips zipper down independently
(2) Zipping up	Shows complete dependence	Shows interest in learning	Helps adult zip up	Zips zipper up with direction	Zips zipper up independently
(3) Starting zipper	Shows complete dependence	Shows interest in learning	Helps adult start zipper	Starts zipper with direction	Starts zipper independently
e. Tying knots	Shows complete dependence	Shows interest in learning	Helps adult tie knots	Ties knots with direction	Ties knots independently
f. Tying bows	Shows complete dependence	Shows interest in learning	Helps adult tie bows	Ties bows with direction	Ties bows independently

	1	2	3	4	5
g. Removing outer clothing					
(1) Removing hat	Shows complete dependence	Shows awareness of process	Helps adult remove hat	Removes hat with direction	Removes hat independently
(2) Removing mittens	Shows complete dependence	Shows awareness of process	Helps adult remove mittens	Removes mittens with direction	Removes mittens independently
(3) Removing coat	Shows complete dependence	Shows awareness of process	Helps adult remove coat	Removes coat with direction	Removes coat independently
(4) Removing boots	Shows complete dependence	Shows awareness of process	Helps adult remove boots	Removes boots with direction	Removes boots independently
h. Putting on outer clothing					
(1) Putting on hat	Shows complete dependence	Shows awareness of process	Helps adult put on hat	Puts on hat with direction	Puts on hat independently
(2) Putting on mittens	Shows complete dependence	Shows awareness of process	Helps adult put on mittens	Puts on mittens with direction	Puts on mittens independently
(3) Putting on coat	Shows complete dependence	Shows awareness of process	Helps adult put on coat	Puts on coat with direction	Puts on coat independently
(4) Putting on boots	Shows complete dependence	Shows awareness of process	Helps adult put on boots	Puts on boots with direction	Puts on boots independently

	1	2	3	4	5
2. WASHING HANDS	Shows complete dependence	Dabbles in water	Helps adult wash hands	Washes palms of hands independently	Washes whole hand independently
3. TOILETING	Shows complete dependence (has not established any schedule)	Meets with periodic success when placed on toilet (teacher-determined schedule)	Needs reminding to avoid accidents	Recognizes need but may need assistance (with clothing, facilities)	Knows when and does it independently
4. EATING					
a. Drinking from cup	Exhibits no skill	Drinks liquid from cup when cup is held by an adult	Holds cup to drink (with or without spilling) when placed in hands by an adult	Picks up and drinks from cup independently with occasional spills, holding it with both hands	Drinks independently from cup, holding it in one hand
b. Using spoon	Exhibits no skill	Shows interest in self feeding	Feeds self with fingers	Uses spoon for semi-solid (e.g., pudding)	Uses spoon for liquids (e.g., soup)
c. Using fork	Exhibits no skill	Shows interest in using fork	Uses fork with assistance	Uses fork like a spoon	Uses fork appropriately
d. Using knife	Exhibits no skill	Shows interest in using knife	Spreads with knife	Cuts with knife	Uses knife and fork together

	1	2	3	4	5
5. GROOMING a. Brushing hair	Shows complete dependence	Shows awareness of process	Helps adult brush hair	Uses brush independently with occasional success	Brushes hair appropriately
b. Brushing teeth	Shows complete dependence	Shows awareness of process	Helps adult brush teeth	Uses brush independently with occasional success	Brushes teeth appropriately
c. Wiping nose and/or mouth	Shows complete dependence	Shows awareness of process	Uses tissue independently but ineffectively	Uses tissue independently with occasional success	Uses tissue appropriately
6. CARING FOR CLOTHING (Hanging up clothing)	Shows complete dependence	Shows awareness of process	Helps adult hang up coat	Hangs up coat, but not always appropriately	Hangs up coat in the proper way and place
7. PUTTING AWAY TOYS	Shows complete dependence	Shows awareness of process	Helps adult put toys away	Puts toys away, but not always properly	Puts toys away in proper places

D. EXHIBITING BODY AWARENESS

	1	2	3	4	5
1. SHOWING SELF-AWARENESS	Shows no self-awareness	Responds when name is called	Recognizes self in mirror with verbal prompting	Recognizes self in mirror without verbal prompting	Identifies self in photo-graphs
2. NAMING BODY PARTS	Shows no awareness of body parts	Names or touches gross body parts on self (head, arms, legs, tummy) on command	Names or touches fine body parts (facial features, fingers, toes)	Names and touches parts of body by function	Identifies body parts of others

ACADEMIC SKILLS
A. GENERAL READINESS

	1	2	3	4	5
1. PARTICIPATING IN THE GROUP	Shows no awareness of the group	Joins the group with little involvement	Joins the group and attempts to pay attention to what is happening around him	Attends to task within the group	Participates in the group
2. LISTENING	Does not listen	Listens to some commands	Interupts with extraneous comments while listening	Needs reminders while listening	Listens attentively while under group supervision
3. FOLLOWING DIRECTIONS	Does not follow directions	Follows one-step directions with assistance	Follows one-step directions independently	Follows two-step directions independently	Follows complex directions independently
4. HANDLING BOOKS	Destroys books	Does not destroy books	Explores and manipulates books	Shows interest in pictures	Turns pages in anticipation
5. USING BOOKS	Does not listen while story is read	Listens while story is read	Selects story to be read	Repeats words with teacher	Appears to be ready to begin reading instruction
6. OBEYING RULES	Seems unaware that rules exist	Shows awareness of given rules but nonconforming	Tries to conform, but needs encouragement	Conforms to usual rules	Accepts rules

	1	2	3	4	5
7. SOLVING PROBLEMS	Does not recognize a problem	Sees a problem and withdraws	Asks for help without trying	Tries solutions at random to solve a problem	Tries to solve problem based on previous experiences

B. COMMUNICATION SKILLS

	1	2	3	4	5
1. DEMONSTRATING RECEPTIVE LANGUAGE SKILLS	Possesses no receptive language skills	Makes eye contact	Smiles in response to another person's smile	Uses movements and gestures to denote needs	Responds appropriately to a single commission
2. DEMONSTRATING EXPRESSIVE LANGUAGE SKILLS	Possesses no expressive language skills	Babbles to self	Makes sounds to get attention	Imitates some sounds	Responds verbally to questions
3. MAKING CONVERSATION	Engages in no form of conversation	Listens, but does not engage in conversation	Converses with one-word statements	Converses in simple phrases	Converses comfortably in complete sentences
4. DEMONSTRATING SPEECH	Demonstrates no distinguishable speech	Demonstrates speech which is understood only by immediate family	Demonstrates unclear speech but is understood by teacher	Demonstrates immature speech, but is understood by people other than teacher or immediate family	Speaks in an easily understood manner

	1	2	3	4	5
5. USING EXPRESSIONS					
a. Greeting (e.g., "hi")	Makes no attempt	Imitates adult pronounciation of expression	Uses expression with prompting	Initiates expression in usual situations	Uses appropriately in a variety of situations
b. Good-bye (e.g.,"bye")	Makes no attempt	Imitates adult pronounciation of expression	Uses expression with prompting	Initiates expression in usual situations	Uses appropriately in a variety of situations
c. Please	Makes no attempt	Imitates adult pronounciation of expression	Uses expression with prompting	Initiates expression in usual situations	Uses appropriately in a variety of situations
d. Thank you	Makes no attempt	Imitates adult pronounciation of expression	Uses expression with prompting	Initates expression in usual situations	Uses appropriately in a variety of situations
e. You are welcome	Makes no attempt	Imitates adult pronounciations of expression	Uses expression with prompting	Initiates expression in usual situations	Uses appropriately in a variety of situations
f. Apology (e.g., "excuse me")	Makes no attempt	Imitates adult pronounciation of expression	Uses expression with prompting	Initates expression in usual situations	Uses appropriately in a variety of situations

C. EARLY SKILL DEVELOPMENT

	1	2	3	4	5
1. DEMONSTRATING PICTURE RECOGNITION SKILLS	Demonstrates no ability to recognize a familiar picture when named	Recognizes picture as representing object named	Chooses correct picture out of 2 to indicate object named	Chooses correct picture out of 3 to indicate object named	Chooses correct picture out of 4 to indicate object named
2. DEMONSTRATING PICTURE RELATIONSHIPS	Demonstrates no ability to associate pictures	Indicates similarities between 2 pictures (e.g., ** are the same)	Indicates 1 object in 4 which is not like the others (e.g., ** -*)	Matches pictures of familiar objects which occur together (e.g., baseball and bat)	Arranges 3 pictures in sequence to tell a story
3. DEMONSTRATING LETTER READINESS					
a. Naming	Shows no skills in naming letter symbols	Tries to name letter symbols	Knows names of 3 letters (any 3)	Knows parts of the alphabet	Knows alphabet
b. Writing (Rate each letter)	Shows no skills in writing symbol for letter	Imitates writing of symbol (motor, visual, and verbal cues are given)	Traces symbol (visual, verbal, and outline cues are given)	Copies symbol (visual and verbal cues are given)	Writes letter on request (verbal cues only)
A					
a					

	1	2	3	4	5
B					
b					
C					
c					
D					
d					
E					
e					
F					
f					
G					
g					
H					
h					
I					
i					
J					
j					
K					
k					

	1	2	3	4	5
L					
l					
M					
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N					
n					
O					
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P					
p					
Q					
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U					
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	1	2	3	4	5
V					
v					
W					
w					
X					
x					
Y					
y					
Z					
z					
c. Matching	Shows no skill in matching letter names and symbols	Finds symbol for first letter of name	Finds symbols for at least 3 letters in name	Finds symbols for all letters in name	Finds correct symbol for any letter on request
4. DEMONSTRATING NUMBER READINESS a. Counting	Shows no counting skills	Tries to count	Names any 3 numbers	Counts to 5 by rote	Counts to 10 by rote

		1	2	3	4	5
	b. Writing (Rate each number)	Shows no skill in making symbol for number	Imitates writing of number symbol (motor, visual, and verbal cues are given)	Traces number symbol (visual, verbal, and outline cues are given)	Copies number symbol (visual and verbal cues are given)	Makes number symbol on request (verbal cues only)
	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	c. Matching	Shows no skill in matching number names and symbols	Matches number symbols (e.g., "3" and "3")	Finds corect symbol for at least 2 numbers	Finds correct symbol for at least 5 numbers	Finds correct symbol for any number on request
5.	DEMONSTRATING MEMORY SKILLS	Shows no memory skills	Knows where to find a specific item	Recalls names of visitors, etc.	Recalls one idea	Knows words of songs or poems

. PERCEPTUAL SKILLS

A. VISUAL DISCRIMINATION SKILLS

	1	2	3	4	5
1. FOCUSING	Engages in diffuse visual activity (not purposeful observation)	Focuses on motion or light	Focuses on bright colors	Focuses on large objects and/or instructor	Focuses on small objects
2. DISCRIMINATING AMONG SHAPES	Demonstrates no awareness of differences in shapes	Recognizes differences in shapes	Matches like shapes by physical or visual screening	Selects circle and square on request	Selects and names like shapes from large assortment
3. DISCRIMINATING AMONG COLORS					
a. Conceptualizing	Demonstrates no awareness of color differences	Shows interest in color	Shows interest in one color	Matches like colors	Chooses particular color to complete a task
b. Naming	Demonstrates no awareness of color names	Associates language symbol with color (not necessarily correctly)	Matches language symbol with color	Selects color on request	Names and identifies crayon box colors correctly
4. DISCRIMINATING AMONG QUANTITIES	Demonstrates no awareness of amounts	Demonstrates understanding of one vs. many (e.g., follows direction to take one of something)	Demonstrates understanding of 1 vs. 2	Arranges objects into groups of 2's	Groups objects into 3's, 4's, and 5's

	1	2	3	4	5
5. DISCRIMINATING AMONG SIZES	Demonstrates no awareness of differences in size	Differentiates between two grossly different-sized objects by physical screening (e.g., takes bigger piece of cake)	Selects smallest and largest objects from a group of three	Selects smallest and largest objects from a group of five	Arranges five items from smallest to largest

B. NON-VISUAL DISCRIMINATION SKILLS

	1	2	3	4	5
1. DEMONSTRATING AUDITORY DISCRIMINATION (without visual clues)	Demonstrates no awareness of sound	Responds to sound with startle response	Turns head to source of sound	Focuses on certain sounds (e.g., responds to name)	Responds to patterns of sound (e.g., follows stories) and differentiates among voices of peers
2. DEMONSTRATING TASTE DISCRIMINATION (without visual clues)	Demonstrates indifference toward tastes	Shows interest in tastes	Shows preference for and/or dislike of particular foods	Experiments with taste (e.g., tastes something new)	Identifies taste by clue (e.g., names food when wrapper is seen)

	1	2	3	4	5
3. DEMONSTRATING SMELL DISCRIMINATION (without visual clues)	Demonstrates indifference toward smells	Shows interest in smells	Shows preference for and/or dislike of particular smells	Experiments with smell (e.g., sniffs flower)	Identifies smell by clue (e.g., smell of popcorn)
4. DEMONSTRATING TACTILE DISCRIMINATION (without visual clues)	Demonstrates indifference toward textures	Picks up objects	Shows preference for a particular texture	Discriminates between grossly different materials (e.g., matches like objects that are wet and dry, smooth and rough)	Pairs items found among materials of different textures

SUMMARY OF CHILD'S
CURRENT LEVEL OF FUNCTIONING

MOTOR SKILLS

ACADEMIC SKILLS

PERCEPTUAL SKILLS

BEHAVIORAL PRESCRIPTION
(based on the results of the checklist)

IMMEDIATE OBJECTIVES

PROCEDURES

EVALUATION

TEACHER'S COMMENTS

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APPENDIX B

BEHAVIORAL PRESCRIPTION FORM
M-A-P Project
ARIN Intermediate Unit

Name _____

Date _____ C.A. _____

Current Level of Functioning (Based on the results of the M-A-P Skill Development Checklist)

Motor:

Small and large muscle coordination

Personal hygiene and care

Body awareness

Perceptual:

Visual discrimination

Auditory discrimination

Taste discrimination

Smell discrimination

Specific discrimination skills
(shape, quantity, color)

Name _____

Current Level of Functioning:

Academic:

Participation in school routine

Communication skills

Readiness skills with symbols

Readiness skills with numbers

BEHAVIORAL PRESCRIPTION

Name _____

Teacher _____ Date _____

M-A-P Goals for Academic Year

Immediate Objectives

Procedures

Reinforcers

Evaluation

Teacher Comments

APPENDIX C

PARENT RELEASE TO PHOTOGRAPH CHILD
M-A-P Project
ARIN Intermediate Unit

In order to assist in the development of the best possible educational program for my child, _____ (Name of Child) I authorize the ARIN Intermediate Unit to photograph, record, or reproduce in any other way the activities in which my child engages during the 1972-73 school year. I understand that the evidence of my child's progress may also be helpful in designing programs for other children in future opportunity classes.

_____ (Parent or Guardian)

_____ (Date)

_____ (Witness)

APPENDIX D

MEDICAL RELEASE FORM
M-A-P Project
ARIN Intermediate Unit

AUTHORIZATION FOR DISCLOSURE OF MEDICAL RECORDS, REPORTS AND OTHER CONFIDENTIAL INFORMATION

I authorize the release of medical records, reports, and other confidential information regarding _____ (Child's Name), to the ARIN Intermediate Unit. I understand that these records will be used only for the purpose of providing more adequate planning for my child's school program.

_____ (Parent or Guardian) _____ (Date)

_____ (Witness)

Currently, my child is chiefly under the care of:

_____ (Doctor) _____ (Address) _____ (Phone)

Other physicians who are working with my child include:

NAME	ADDRESS	PHONE NUMBER

APPENDIX E*

PHYSICAL FITNESS EVALUATION
M-A-P Project
ARIN Intermediate Unit

NAME _____ AGE _____

DATE _____

MUSCULAR FITNESS:

Strength--

Muscular endurance--

Flexibility--

Posture--

ORGANIC FITNESS:

PHYSIQUE:

*Designed by Mr. Samuel Cross.

BALANCE:

ATTITUDE:

Suggested Activities for Improvement in Areas of Motor Weaknesses:

APPENDIX F

TESTS OF MOTOR-PERCEPTION
(developed by Dr. Mary Alice Magruder)

CHILD'S NAME _____

ACTIVITY	DATE PASSED by imitation	DATE PASSED by instruction
1. Stands up straight		
2. Sits up straight		
3. Lies down on back		
4. Lies down on stomach		
5. Walks using arm movement		
6. Walks with feet straight		
7. Shakes right hands		
8. Shakes left hands		
9. Stands with arms shoulder height		
10. Stands with feet apart		
11. Stands with hands on hips		
12. Lies down on right side		
13. Lies down on left side		
14. Runs with feet straight		
15. Runs with arm movement		
16. Walks a line on floor for 10 feet		
17. Stands on one foot for 10 seconds		
18. Takes a side-step to the right		
19. Takes a side-step to the left		
20. Crawls with opposition (arms/legs)		

ACTIVITY	DATE PASSED by imitation	DATE PASSED by instruction
21. Crawls backwards		
22. Crawls through tunnel		
23. Side-steps to the right		
24. Side-steps to the left		
25. Holds arms in front of body, palms up		
26. Holds arms in front of body, palms down		
27. Claps hands to simple rhythm		
28. Jumps up		
29. Jumps forward		
30. Jumps forward 2 feet		
31. Hops on right foot		
32. Hops on left foot		
33. Hops 5 times on right foot		
34. Hops 5 times on left foot		
35. Hops 10 times on right foot		
36. Hops 10 times on left foot		
37. Skips		
38. Places hands on hips		
39. Places hands on hips with feet apart		
40. Touches palms together over head		
41. Bends down and touches toes		
42. Rolls from back to right side (to left side)		
43. Rolls from stomach to right side		

APPENDIX F (CONT'D.)

ACTIVITY	DATE PASSED by imitation	DATE PASSED by instruction
44. Rolls from stomach to left side		
45. Rolls to the right 5 times		
46. Rolls to the left 5 times		
47. Rolls to the right 10 times		
48. Rolls to the left 10 times		
49. Catches a ball rolled on the floor		
50. Rolls a ball on the floor		
51. Bounces a large ball (8") and catches it		
52. Tosses a large ball up and catches it		
53. Throws a large ball to another person		
54. Catches a large ball with hands		
55. Throws a small ball with one hand		
56. Catches a small ball		
57. Stands on right foot, holds left in front of body		
58. Stands on left foot, holds right in front of body		
59. Stands on right foot, holds left behind body		
60. Stands on left foot, holds right behind body		
61. Stands on right foot, holds left to side		
62. Stands on left foot, holds right to side		
63. Jumps placing feet apart		
64. Jumps placing feet together		

APPENDIX F (CONT'D.)

ACTIVITY	DATE PASSED by imitation	DATE PASSED by instruction
65. Jumps placing feet apart, and claps hands over head		
66. Jumps placing feet together and arms at sides		
67. Does 1 jumping jack		
68. Does jumping jacks		
69. Gallops		
70. Jumps 10 times		
71. Walks on a line placing one foot in front of the other		
72. Walks backwards		
73. Jumps over a rope 2" from the floor		
74. Jumps over a rope 4" from the floor		
75. Jumps over a rope 6" from the floor		
76. Jumps over a rope that is low but swinging		
77. Jumps a rope that is being turned		
78. Lies on stomach and arches back and head		
79. Lies on stomach, arches back and head with arms raised at sides		
80. Stands on one foot with back arched		
81. Does 1 bent-knee sit-up		
82. Does 5 bent-knee sit-ups		
83. Does 10 bent-knee sit-ups		
84. Does 15 bent-knee sit-ups		
85. Does 1 bent-knee push-up		

ACTIVITY	DATED PASSED by imitation	by instruction
86. Does 5 bent-knee push-ups		
87. Does 10 bent-knee push-ups		
88. Does 15 bent-knee push-ups		
89. Twists slowly from side to side, arms at sides		
90. Hits a large ball with a hand paddle		
91. Hits a small ball with a hand paddle		
92. Catches a large ball thrown from 10 feet		
93. Throws a large ball to a person 10 feet away		
94. Dribbles a large ball 5 times		
95. Dribbles a large ball 10 times		
96. Runs fast with flexed arms		
97. Does forward roll		
98. Does 5 forward rolls (series)		
99. Moves to the rhythm of music		
100. Plays dodge ball		

APPENDIX G

CHECKLIST FOR EVALUATING WALKING FORM
(University of Oregon)

CHILD'S NAME _____ DATE _____

Directions: Observe the child's walk from front, rear, and side positions and check (X) each item or criterion listed under the five headings in the yes or no column.

	YES	NO
Over-all Estimate:		
Alive, alert, and light	____	____
Well-coordinated, rhythmical, free from tension	____	____
Minimal up and down action	____	____
Minimal lateral sway	____	____
Arm Mechanics:		
Easy swing from shoulder with minimal shoulder girdle participation and tension; arms and hands free from tension	____	____
Vigor and magnitude relative to vigor and rate of walk: equidistant swing	____	____
Forward-backward movement; lack of excessive diversion from the straight forward direction	____	____
In opposition to leg action	____	____
Leg Mechanics:		
Easy swing from hip with minimal pelvic movement and tension	____	____
Both thigh and leg make a straight excursion forward and backward	____	____
Equidistant swing of both legs, length of stride relative to size of person and rate of walk	____	____
Foot Mechanics:		
Feet approximately parallel (not more than 20° out-toe)	____	____
Carriage of foot in swing straight forward	____	____
Weight transferred through center of foot (no pronation)	____	____
Heel-ball-toe contact	____	____
Push-off firm and concise (without rotation), its force relative to rate of walk	____	____
Body Alignment:		
Shoulders level as viewed from front and back; no lateral lean of trunk	____	____
Slight forward lean from ankles, its amount relative to rate of walk--"weight over step"	____	____
Minimal forward or backward pelvic tilt	____	____
Shoulders balanced over pelvis; rib cage forward and slightly lifted	____	____
Head balanced over shoulders in easy, erect position	____	____

APPENDIX H

BALANCE BOARD SKILLS CHECKLIST

NAME _____ AGE _____ CLASS _____

ACTIVITY	DATE			COMMENTS
#1				
#2				
#3				
#4				
#5				
#6				
#7				
#8				
#9				
#10				

#1: Board upside down-walk entire length with support
#2: Board upside down-walk entire length without support
#3: Board upright-walk entire length with support
#4: Board upright-jump off end with support
#5: Board upright-bounce on board with support
#6: Board upright-jump off side with support
#7: Board upright-walk entire length without support
#8: Board upright-jump off end without support
#9: Board upright-jump off side without support
#10: Board upright-bounce on board without support

APPENDIX I

CRATTY SIX-CATEGORY GROSS-MOTOR TEST: LEVEL I

NAME _____ AGE _____

DATE OF TESTING _____

EVALUATED BY _____

CRATTY SIX-CATEGORY GROSS-MOTOR TEST

Level 1 - Test 1 Body Perception (maximum of 5 points)

_____ (1) a. Lie down on mat.

_____ (1) b. Lie down on mat on back.

_____ (1) c. Lie down on mat on stomach.

_____ (1) d. Lie down on mat on side.

_____ (1) e. Lie down on left side.

Level 1 - Test 2 Gross Agility (maximum of 5 points, check one)

_____ (1) Child turns to stomach first and arises in more than three seconds.

_____ (2) Child turns to stomach first and arises under three seconds.

_____ (3) Child sits up, without turning over, and stands up without turning back to tester taking more than three seconds.

_____ (4) Child sits up, remains facing the tester when arising, and does so in two seconds.

_____ (5) Child sits up, remains facing the tester when arising, and does so under two seconds.

NAME _____

Level 1 - Test 3 Balance (maximum 5 points, check one)

Standing on one foot (preferred foot - _____)

_____ (1) attempted and held for 1 second

_____ (2) held 2-4 seconds

_____ (3) held 4-6 seconds

_____ (4) held over 6 seconds

_____ (5) arm-folded balance

Level 1 - Test 4 Locomotor Agility (maximum 5 points, check each)

_____ (1) Cross-extension crawling.

_____ (1) Cross-extension walking.

_____ (1) Jumping down mat (leaves ground 2-3 times)

_____ (1) Jumping backwards (2-3 times without falling)

_____ (1) Hopping on one foot (2-3 times)

Level 1 - Test 5 Ball Throwing (maximum 5 points for habitual method of throwing, check one)

_____ (1) Pushes ball with hands or feet

_____ (2) Throws ball with both arms

_____ (3) Throws with one arm, no body shift

_____ (4) Throws with body weight shift forward, without proper step on opposite foot

_____ (5) Throws with weight shift and step on opposite foot

NAME _____

Level 1 - Test 6 Ball Tracking (maximum 5 points, check one)

_____ (1) 1 out of 5 throws caught by child

_____ (2) 2 out of 5 throws caught by child

_____ (3) 3 out of 5 throws caught by child

_____ (4) 4 out of 5 throws caught by child

_____ (5) 5 out of 5 throws caught by child

TOTAL SCORE _____

COMMENTS:

APPENDIX J

SELF-EVALUATION FORM OF VIDEOTAPED TEACHING SESSION

DATE _____ CLASS _____

LESSON _____

DIRECTIONS: The following questions should serve as a guide toward your self-evaluation of areas of major importance in the videotaped teaching session. THIS FORM IS TO BE KEPT STRICTLY CONFIDENTIAL AND IS ONLY FOR YOUR USE.

BEHAVIORAL OBJECTIVES	YES	NO
Could you determine the lesson objectives?	____	____
Were the objectives appropriate?	____	____
USE OF REINFORCEMENT		
Did you consistently reinforce each child for correct responses?	____	____
Did you respond appropriately to the children's incorrect responses?	____	____
Did you always deliver the reward "enthusiastically"?	____	____
SHAPING AND MAINTAINING ATTENDING BEHAVIORS		
Did you maintain class interest and attention throughout the lesson?	____	____
____by requiring and reinforcing attending behaviors?		
____by ignoring inappropriate attention-getting behaviors?		
____by presenting brief learning experiences?		
LESSON STRUCTURE		
Were your objectives appropriate for each child?	____	____
Did you verbalize directions clearly and simply?	____	____
Did you require responses that each child could perform correctly?	____	____
____by providing cues when necessary?		
____by eliminating the opportunity to make incorrect responses?		
____by isolating and sequencing tasks so that the difficulty of lessons corresponds to the child's ability?		
MATERIALS		
Were materials appropriate to the task?	____	____
Did you handle these materials effectively?	____	____
Did you do this by: ____eliminating distracting materials?		
____maintaining control of the materials?		

If you were going to teach this lesson again, would you approach it differently? How?

APPENDIX K

MEDIA EVALUATION FORM
M-A-P Project
ARIN Intermediate Unit

Learning Material _____ Date _____

Vendor _____ Cost _____

Address _____

Medium: (check)

____Book	____Photographs	____Tapes
____8 mm Film	____Recording	____Transparencies
____16 mm Film	____Slides	____Video Tape
____Instructional Device		
____Other (please specify) _____		

Evaluator's Name _____

Position _____

Class _____

School _____

Brief description of material:

Circle the number indicating your rating. Consider the needs and abilities of the children in your class.

1. Relevancy of the material presented.

1	2	3	4	5
unimportant to class		related		important

2. Overall organization of content.

1	2	3	4	5
confusing		fair organization		logical, easy to follow

3. Pacing.

1	2	3	4	5
moves too fast, presents too many concepts		is acceptable		possesses good pacing

4. Length.

1	2	3	4	5
____too long ____too short (check)		acceptable		good length

5. Technical quality.

1	2	3	4	5
poor		average		excellent

6. Student interest.

1	2	3	4	5
evokes little response		evokes moderate interest		evokes high interest

7. Student comprehension.

1	2	3	4	5
beyond ability level		some of the material is understood		clearly understood

8. Emotional effect on the children.

1	2	3	4	5
____is over-stimulating ____is under-stimulating (check)		has fair effect		promotes interest and enthusiasm

9. Overall rating.

1	2	3	4	5
poor	below average	fair	good	excellent

10. Recommended for use with the young child who is: (check)

_____ Profoundly mentally retarded
_____ Severely mentally retarded
_____ Moderately mentally retarded (trainable)
_____ Mildly mentally retarded (educable)
_____ Physically handicapped
_____ Learning disabled
_____ Speech-impaired
_____ Emotionally disturbed
_____ Socially/culturally disadvantaged
_____ Multiply handicapped

11. Segment of Program in which used:

_____ MOTOR
_____ ACADEMIC
_____ PERCEPTUAL
_____ OTHER

12. Would you recommend this item be adopted into existing programs?

_____ Yes _____ No

COMMENTS:

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